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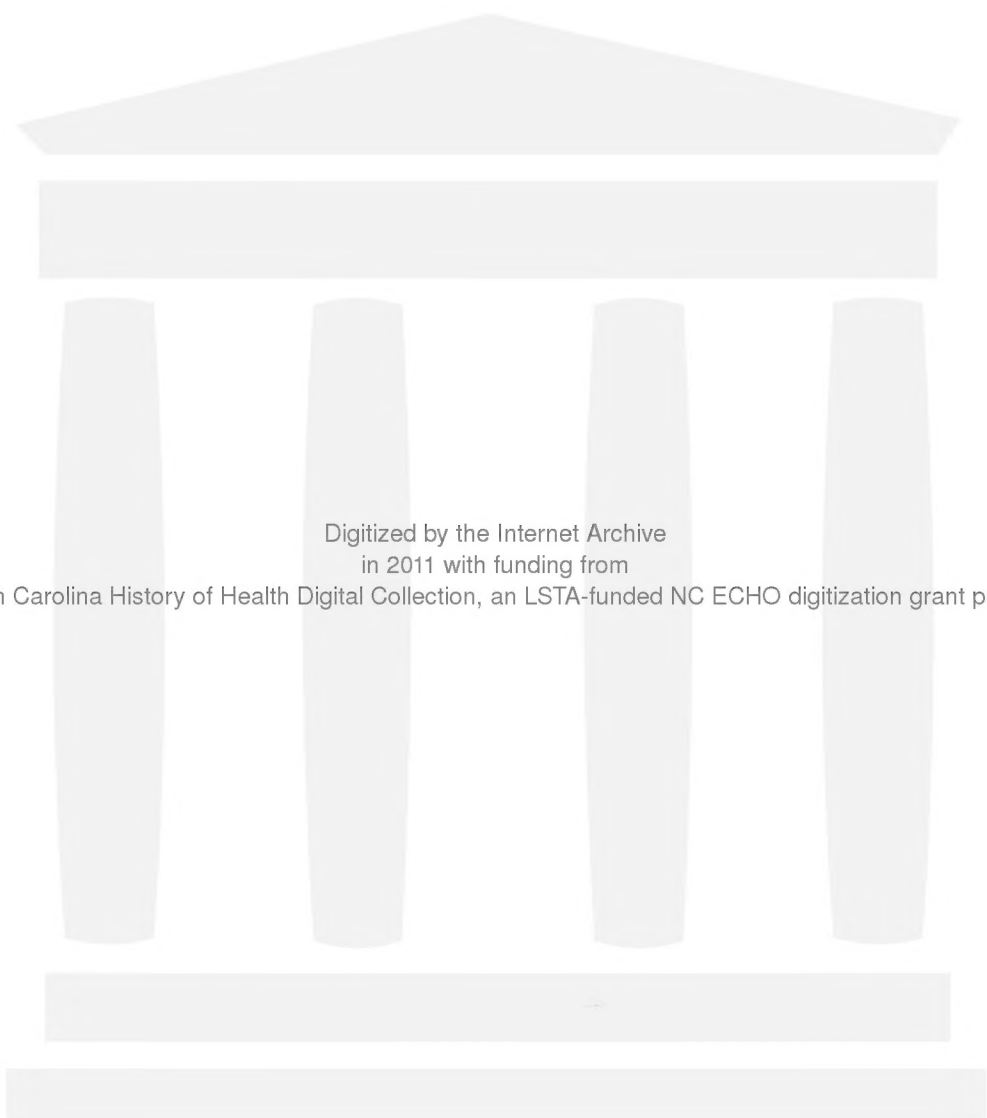
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Vol. 23 No. 1

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Compulsion vs. Freedom of Choice

Leonard W. Larson, M. D.

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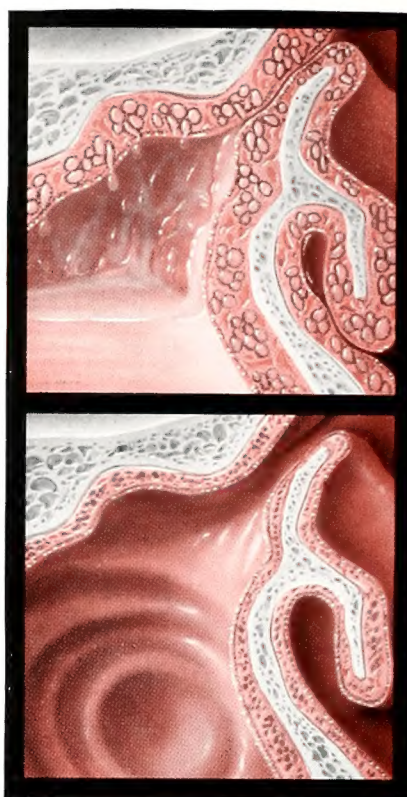
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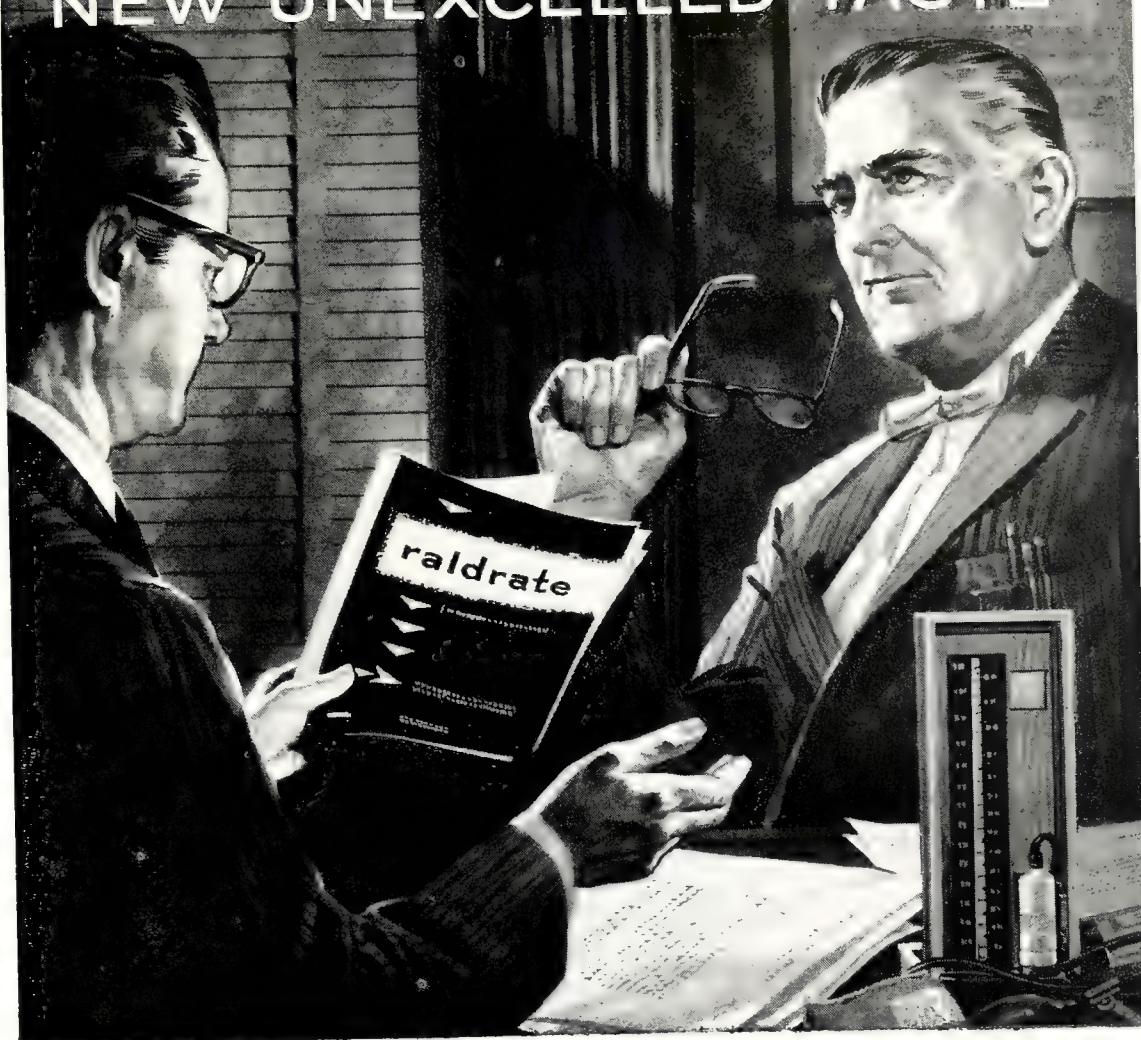
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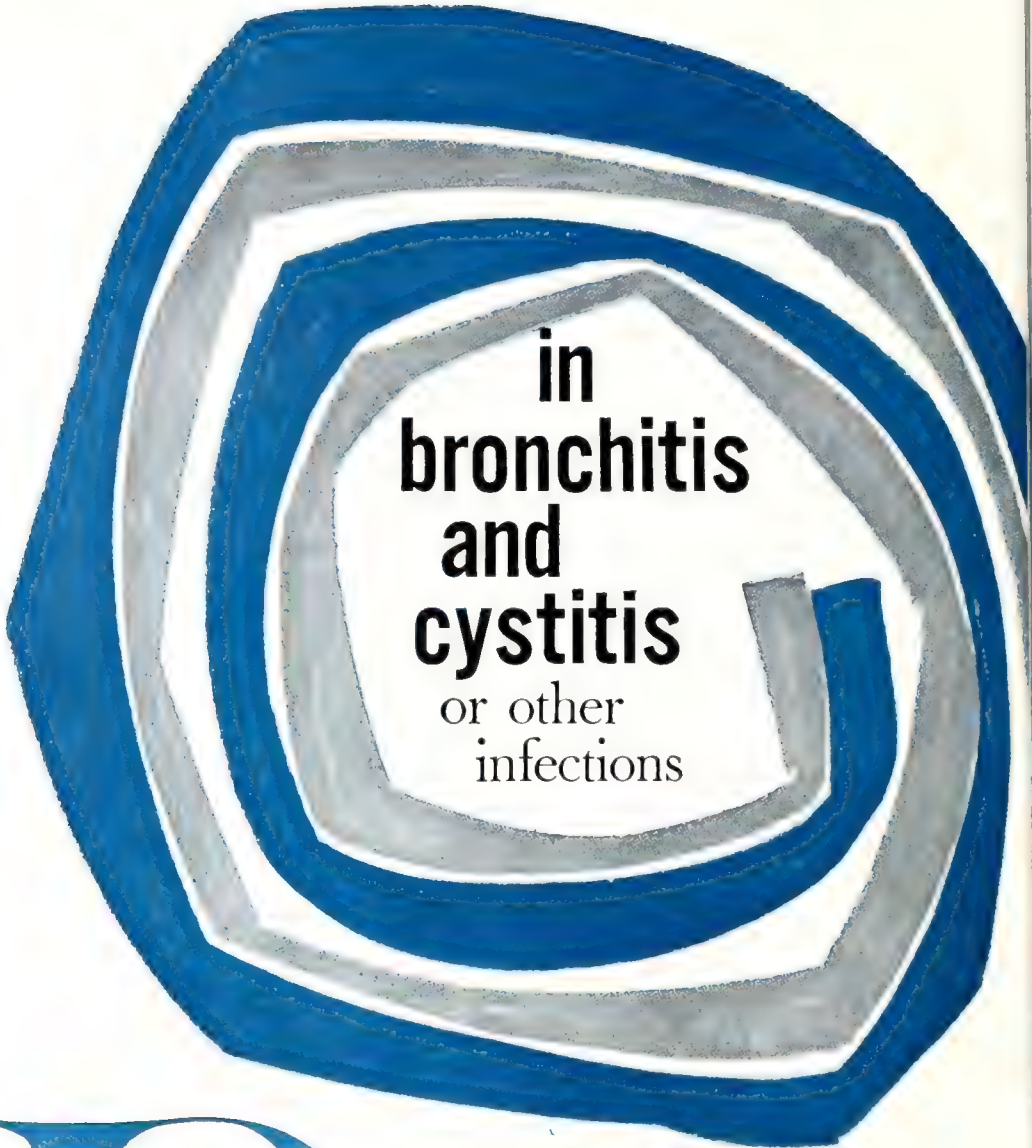
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(1) Danowski, T. S.: Diabetes Mellitus, Baltimore, Williams & Wilkins, 1957, p. 239. (2) McCune, W. G.: M. Clin. North America 44:1479, 1960. (3) Ackerman, R. F., et al.: Diabetes 7:398, 1958.

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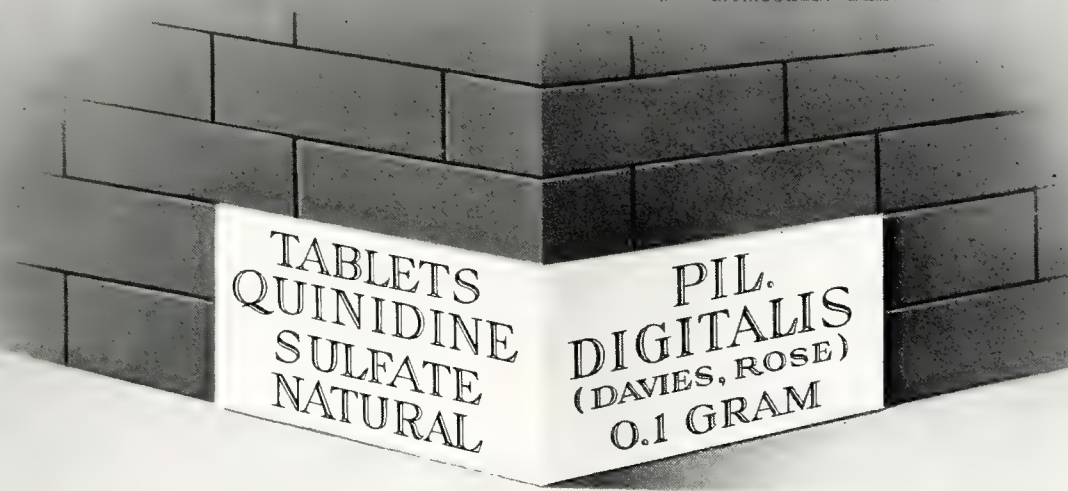
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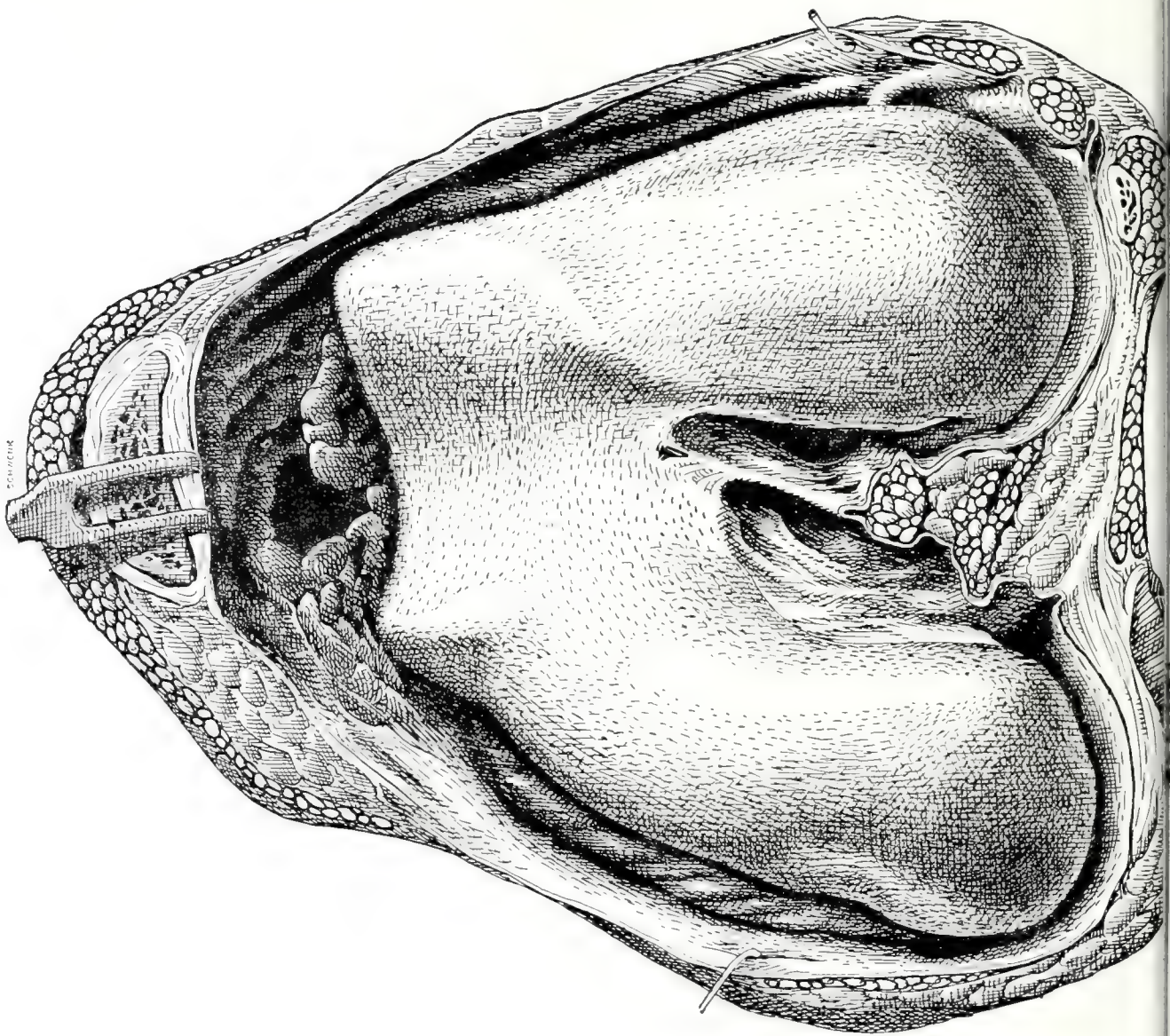
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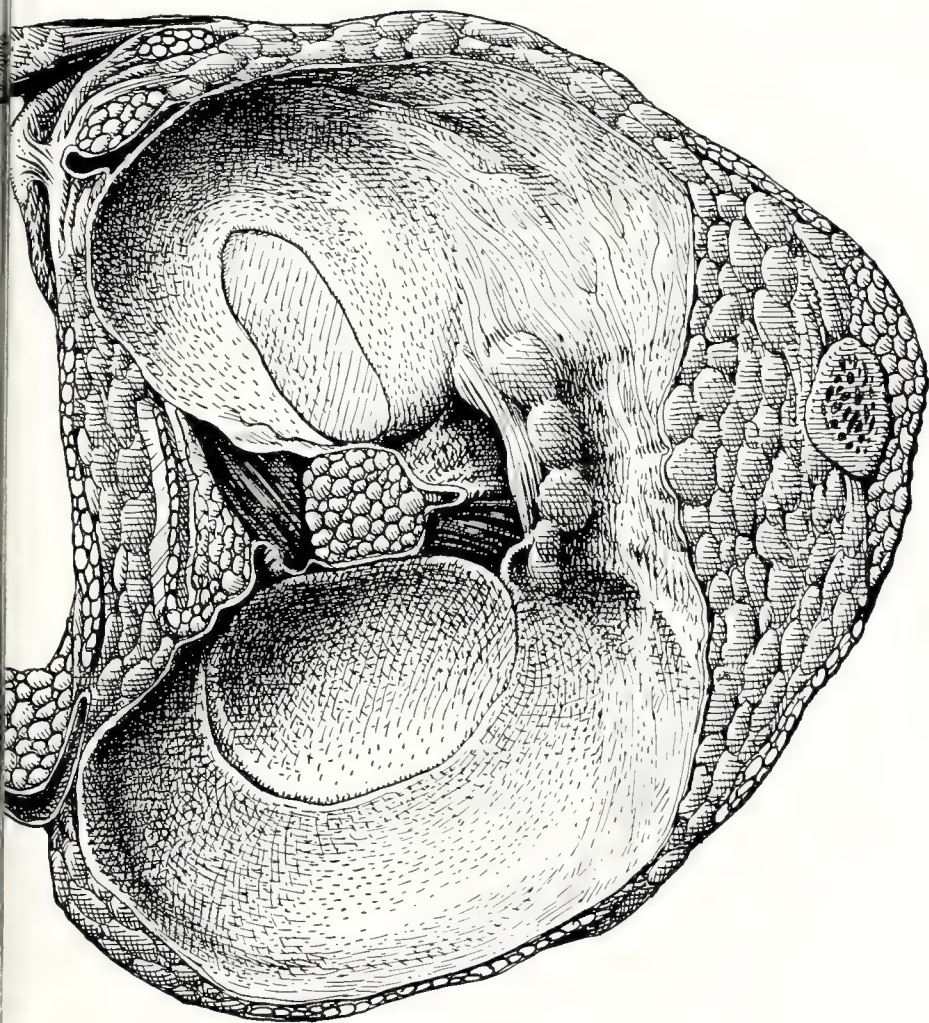
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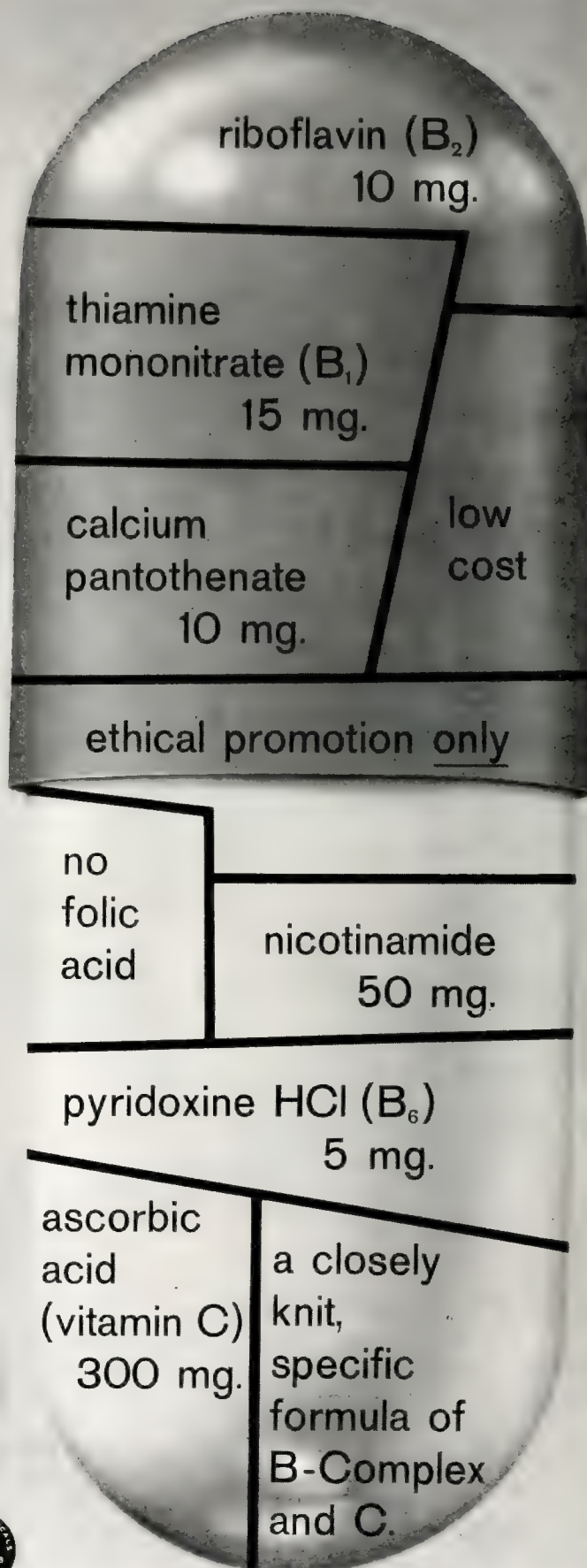
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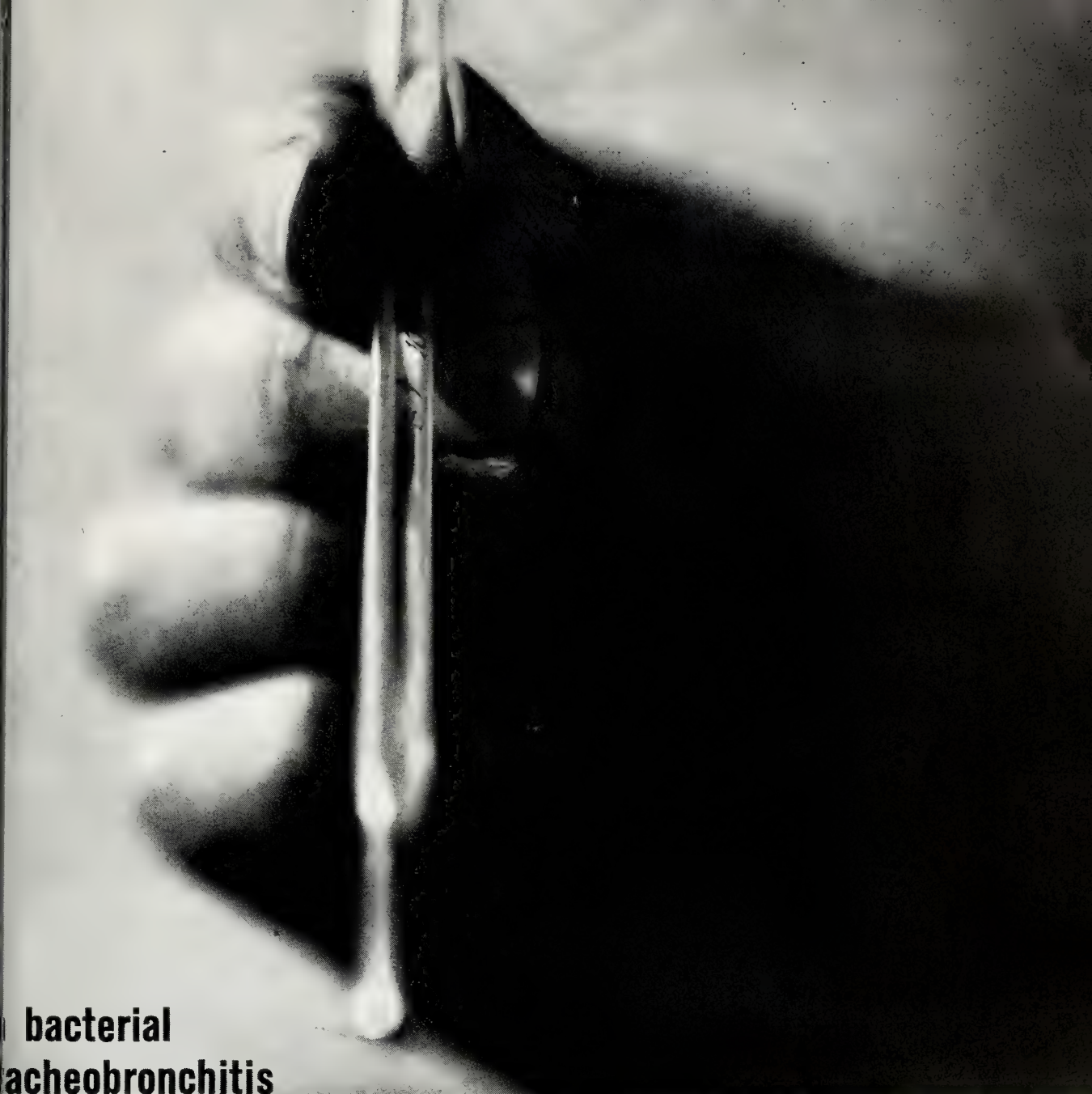
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In the presence of bacterial infection, taking a culture to determine bacterial identity and sensitivity is desirable—but not always practical in terms of the time and facilities available.

A rational clinical alternative is to launch therapy at once with Panalba, the antibiotic that provides the best odds for success.

Panalba is effective (in vitro) against 30 common pathogens, including the ubiquitous staph. Use of Panalba *from the outset* (even pending laboratory results) can gain precious hours of effective antibiotic treatment.

Supplied: Capsules, each containing Panmycin® Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.

Usual Adult Dosage: 1 or 2 capsules 3 or 4 times a day.

Side Effects: Panmycin Phosphate has a very low order of toxicity comparable to that of the other tetracyclines and is well tolerated clinically. Side reactions to therapeutic use in patients are infrequent and consist principally of mild nausea and abdominal cramps.

Albamycin also has a relatively low order of toxicity. In a certain few patients, a yellow pigment has been found in the plasma. This pigment, apparently, a metabolic by-product of the drug, is not necessarily associated with abnormal liver function tests or liver enlargement.


Urticaria and maculopapular dermatitis, a few cases of leukopenia and thrombocytopenia have been reported in patients treated with Albamycin. These side effects usually disappear upon discontinuance of the drug.

Caution: Since the use of any antibiotic may result in overgrowth of nonsusceptible organisms, constant observation of the patient is essential. If new infections appear during therapy, appropriate measures should be taken.

Total and differential blood counts should be made routinely during prolonged administration of Albamycin. The possibility of liver damage should be considered if a yellow pigment, a metabolic by-product of Albamycin, appears in the plasma. Panalba should be discontinued if allergic reactions that are not readily controlled by antihistaminic agents develop.

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Put your low-back patient back on the payroll

*Soma relieves stiffness
—stops pain, too*

YOUR CONCERN: Rapid relief from pain for your patient. Get him back to his normal activity, *fast!*

HOW SOMA HELPS: Soma provides direct pain relief while it relaxes muscle spasm.

YOUR RESULTS: With pain relieved, stiffness gone, your patient is soon restored to full activity—often in days instead of weeks.

This was demonstrated by Kestler in a controlled study: average time for full recovery was 11.5 days with Soma, 41 days without Soma. (J.A.M.A. 172:2039, April 30, 1960.)

Soma is notably safe. Side effects are rare. Drowsiness may occur, but usually only in higher dosages. Soma is available in 350 mg. tablets. USUAL DOSAGE: 1 TABLET Q.I.D.

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(carisoprodol, Wallace)

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Recent medical literature¹⁻²⁷—adding to an already massive bibliography—continues to document the effectiveness of well-tolerated Terramycin in pediatric, respiratory, and other infections.

Recent bibliography: 1. A.M.A. Council on Drugs. New and Nonofficial Drugs 1961. Philadelphia: Lippincott, 1961, pp. 382-447. 2. Beckman, H.: The Year Book of Drug Therapy, Chicago, Year Bk. Pub., 1961, p. 274. 3. Eastman, N. J., and Hellman, L. M.: Williams Obstetrics, ed. 12, New York, Appleton-Century-Crofts, 1961, pp. 845-1035. 4. Keefer, C. S., in Madell, W.: Drugs of Choice, 1960-1961, St. Louis, Mosby, 1960, pp. 141, 146, 147. 5. Huang, N. N.: J. Pediat., 59:342, 1961. 6. Smith, R. C. E. Brit. J. Clin. Practice, 15:345, 1961. 7. Asay, L. D., and Koch, R.: New England J. Med., 262:1062, 1960. 8. Berry, D. G., et al.: Lancet 1:137, 1960. 9. Oast, A., et al.: The Dispensary of the United States of America, ed. 25, Philadelphia, Lippincott, 1960, pp. 953, 1556. 10. Adams, A. R. D.: Brit. M. J., 1:1639, 1960. 11. Jung, R. C., and Carrera, G. M.: Dis. Colon & Rectum, 3:343, 1960. 12. De Lamater, J. N.: Am. J. Gastroenterol., 34:130, 1960. 13. Suwan, W. H., et al., in Kelley, V. C.: Brennenman-McQuarrie-Kelley Practice of Pediatrics, Maryland: Prior, 1960, vol. II, chap. 5, p. 19. 14. Wellman, W. E., and Herrick, W. E., in Kelley, V. C.: Brennenman-McQuarrie-Kelley Practice of Pediatrics, Maryland: Prior, 1960, vol. I, chap. 44, p. 13. 15. Weckert, A., and Robertson, B.: Acta chir. scandinav., 120:79, 1960. 16. Alstead, S.: Dilling's Clinical Pharmacology, ed. 20, London, Cassell, 1960, p. 462. 17. Grover, F. W.: Texas J. Med., 57:355, 1961. 18. Gardiner, W. P., and Gomila, R. R., Jr.: Scientific Exhibit, Montreal Disease Seminar, U. S. Public Health Service, Feb. 28-Mar. 3, 1961. 19. Jaques, A. A., and Fuchs, V. H.: J. Louisiana M. Soc., 113:200, 1961. 20. Nathan, L. A.: Scientific Exhibit, 15th Clinical Meet., A.M.A., Denver, Col., Nov. 26-30, 1961. 21. Ullman, A.: Delaware M. J., 32:97, 1960. 22. Lamphier, T. A.: Scientific Exhibit, New York State M. Soc. Meet., New York, May 7-13, 1960. 23. Freier, A.: Paper presented at Michigan Soc. Obst. & Gynec., Detroit, May 3, 1961. 24. Logan, K. M.: Scientific Exhibit, Ann. Meet., Ohio Acad. Gen. Practice, Cincinnati, Sept. 13-14, 1961. 25. Altemeier, W. A., and Wulsin, J. H. (A.M.A. Council on Drug Report): J.A.M.A., 173:527, 1960. 26. Krol, W. J.: J. Abdom. Surg., 3:78, 1961. 27. Potempa, J.: Med. Klin., 56:352, 1961.

In Brief

The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low order of toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. Aluminum hydroxide gel may decrease antibiotic absorption and is contraindicated. For complete dosage, administration, and precaution information, read package insert before using.

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¹ I. Meyers, G. B.: *Ind. Med. & Surg.* 26:3, 1957. ² Murray, R. J.: *N. Y. St. J. Med.* 53:1867, 1953.

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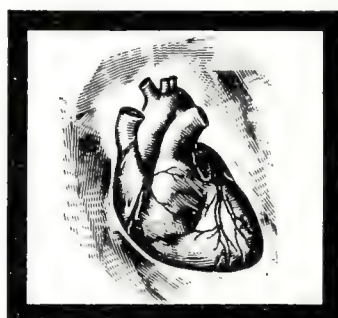
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BECAUSE potassium penicillin V (Compo-cillin-VK) offers excellent absorption^{1,2,3,4}—fast, predictable levels of antibacterial activity enter the blood stream and quickly reach the site of infection. *Absorption takes place high in the digestive tract and is virtually unaffected by gastric media.*

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1. R. Lamb and E. S. Maclean, Penicillin V—A Clinical Assessment After One Year, *Brit. M. J.*, July 27, 1957, p. 191-193. 2. J. I. Burn, M. P. Curwen, R. G. Huntsman and R. A. Shooter, A Trial of Penicillin V, *Brit. M. J.*, July 27, 1957, p. 193. 3. J. Macleod, Current Therapeutics, *The Practitioner*, 178:486, April, 1957. 4. W. J. Martin, D. R. Nichols and F. R. Heilman, Observations on Clinical Use of Phenoxymethyl Penicillin (Penicillin V), *J.A.M.A.*, p. 928, March 17, 1956.





Emotional control regained . . . a family restored . . . thanks to a physician and 'Thorazine'

During the past seven years, 'Thorazine' has become the treatment of choice for moderate to severe mental and emotional disturbances, because it is:

- specific enough to relieve underlying fear and apprehension
- profound enough to control hyperactivity and excitement
- flexible enough so that in severe cases dosage may be raised to two or three times the recommended starting level

Experience in over 14,000,000 Americans confirms the reassuring fact that, in most

patients, the potential benefits of 'Thorazine' far outweigh its possible undesirable effects.

Of special value in mental and emotional disturbances: Tablets for initial therapy; Injection (Ampuls and Vials) for prompt control; Spansule® sustained release capsules for all-day or all-night therapy with a single oral dose.

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'THORAZINE' PRESCRIBING INFORMATION

Because of its pronounced calming effect, 'Thorazine' is an outstanding agent for patients with mental and emotional disturbances, particularly those with symptoms of agitation and hyperactivity. In severe cases, initial use of intramuscular administration may be desirable to control symptoms promptly.

Before prescribing 'Thorazine' for other indications than those given below, the physician should be familiar with the dosage, side effects, cautions and contraindications for such uses. This information is available in the *Thorazine® Reference Manual and Physicians' Desk Reference*, and from your SK&F representative or your pharmacist.

ADMINISTRATION AND DOSAGE

Dosage should always be adjusted to the response of the individual and according to the severity of the condition. It is important to increase dosage until symptoms are controlled or side effects become troublesome. In emaciated or senile patients, dosage increases should be made more gradually than in other patients.

ADULT DOSAGE

Mental and Emotional Disturbances (e.g., agitation, excitement, or anxiety)—*Starting oral dosage* is 10 mg. t.i.d. or q.i.d., or 25 mg. b.i.d. or t.i.d. After a day or two, dosage may be increased by increments of 20 mg. to 50 mg. daily, at semiweekly intervals, until maximum clinical response is achieved. Continue dosage at this level for at least two weeks; then it can usually be reduced to a maintenance level. A daily dosage of 200 mg. is "average," but some patients may require substantially higher dosages. Discharged mental patients, for example, may require daily dosages as high as 800 mg. *Starting intramuscular dose* is 25 mg. (1 cc.). If necessary, and if no hypotension occurs, repeat the initial dose in one hour. Subsequent dosages should be oral, starting at 25 mg. to 50 mg. t.i.d.

Alcoholism—Severely agitated patients: *Starting intramuscular dose* is 25 mg. to 50 mg. (1-2 cc.). Repeat initial dose if necessary and if no hypotension occurs. Start subsequent oral dosages at 25 mg. to 50 mg. t.i.d. **Agitated but manageable patients:** *Starting oral dose* is 50 mg., followed by 25 mg. to 50 mg. t.i.d. For ambulatory patients with withdrawal symptoms or sober chronic alcoholics, *starting oral dosage* is 10 mg. t.i.d. or q.i.d., or 25 mg. b.i.d. or t.i.d. Patients in a stuporous condition should be allowed to sleep off some of the effects of the alcohol before 'Thorazine' is administered.

CHILDREN'S DOSAGE

For Behavior Disorders—Oral dosage is on the basis of ¼ mg./lb. of body weight q4-6h, until symptoms are controlled (i.e., for 40 lb. child—10 mg. q4-6h). **Rectal dosage** is on the basis of ½ mg./lb. of body weight q6-8h, p.r.n. (i.e., for 20-30 lb. child—half of a 25 mg. suppository q6-8h). **Intramuscular dosage** is on the basis of ¼ mg./lb. of body weight q6-8h, p.r.n. In children up to 5 years (or 50 lbs.)—not over 40 mg./day; in children 5-12 years (or 50-100 lbs.)—not over 75 mg./day except in extreme unmanageable cases. In severe cases, higher dosages than those recommended above may be necessary. In such cases, 50-100 mg. daily has been used and, in older children, as much as 200 mg. daily or more may be required.

IMPORTANT NOTES ON INJECTION

Except for acute ambulatory cases, parenteral administration should generally be reserved for bedfast patients. Parenteral administration should always be made with the patient lying down and remaining so for at least ½ hour afterward because of possible hypotensive effects. The injection should be given slowly, deep into the upper outer quadrant of the buttock. Irritation and pain at the site of injection are problems, dilution of 'Thorazine' injection with physiologic saline solution or 2% procaine solution may be helpful. Subcutaneous administration is not advisable, and care should be taken to avoid injecting undiluted 'Thorazine' injection into a vein. Intravenous administration is recommended only for severe hiccups and surgery. 'Thorazine' Injection should not be mixed with other agents in the syringe. Because contact dermatitis has been reported with 'Thorazine', nurses or others giving frequent injections should avoid getting the solution on hands or clothing. 'Thorazine' Injection should be protected from light, since exposure may cause discoloration. Slight yellowish discoloration will not alter potency or efficacy. If markedly discolored, the solution should be discarded.

SIDE EFFECTS

The drowsiness caused by 'Thorazine' is usually mild to moderate and disappears after the first or second week of therapy. If, however, drowsiness is troublesome, it can usually be controlled by lowering the dosage or by administering small amounts of dextro amphetamine. Other side effects reported occasionally are dryness of the mouth, nasal congestion, some constipation, miosis in a few patients and, very rarely, mydriasis.

Mild fever (99°F.) may occur occasionally during the first days of therapy with large intramuscular doses.

Some patients have an increased appetite and gain weight, but usually reach a plateau beyond which they do not gain.

CAUTIONS

Jaundice: The over-all incidence of jaundice due to 'Thorazine' has been low—regardless of indication, dosage, or mode of administration. It appears to be related to duration of therapy. Few cases have occurred in less than one week or after six weeks. The jaundice that has occurred mimics the obstructive type, is without parenchymal damage, and is usually promptly reversible upon the withdrawal of 'Thorazine'. Although the mechanism is not clearly understood, most investigators conclude that it is a sensitivity reaction in susceptible individuals.

There is no conclusive evidence to indicate that pre-existing liver disease makes the patient more susceptible to jaundice. (Patients with known alcoholic cirrhosis have been treated with 'Thorazine' without further alteration of liver function.) Nevertheless, 'Thorazine' should be used with due consideration in a patient with liver disease. If a patient on 'Thorazine' suddenly develops fever with gripe-like symptoms, his serum should be tested for increased bilirubin or his urine for the presence of bile. If any of these tests are positive, 'Thorazine' should be discontinued.

Because detailed liver function tests of 'Thorazine'-induced jaundice give a picture which mimics extrahepatic obstruction, exploratory

laparotomy should be withheld until sufficient studies confirm extrahepatic obstruction.

Agranulocytosis: Agranulocytosis, although rare, has been reported. Patients should be observed regularly and asked to report at once the sudden appearance of sore throat or other signs of infection. If white blood counts and differential smears give an indication of cellular depression, the drug should be discontinued, and antibiotic and other suitable therapy should be instituted.

Because most reported cases have occurred between the fourth and the tenth weeks of treatment, patients on prolonged therapy should be observed particularly during that period.

A moderate suppression of total white blood cells, sometimes observed in patients on 'Thorazine' therapy, is not an indication for discontinuing 'Thorazine' unless accompanied by other symptoms.

Potential: 'Thorazine' prolongs and intensifies the action of many central nervous system depressants such as anesthetics, barbiturates and narcotics. Consequently, it is advisable to stop administration of such depressants before initiating 'Thorazine' therapy. Later the depressant agents may be reinstated, starting with low doses, and increasing according to response. Approximately ¼ to ½ the usual dosage of such agents is required when they are given in combination with 'Thorazine'. (However, 'Thorazine' does not potentiate the anticonvulsant action of barbiturates. In patients who are receiving anticonvulsants, the dosage of these agents—including barbiturates—should not be reduced if 'Thorazine' is started. Rather, 'Thorazine' should be started at a very low dosage and increased, if necessary.)

Hypotensive Effect: Postural hypotension and simple tachycardia may be noted in some patients. In these patients, momentary fainting and some dizziness are characteristic and usually occur shortly after the first parenteral dose, occasionally after a subsequent parenteral dose—very rarely after the first oral dose. In most cases, prompt recovery is spontaneous and all symptoms disappear within ½ to 2 hours with no subsequent ill effects. Occasionally, however, this hypotensive effect may be more severe and prolonged, producing a shock-like condition.

In consideration of possible hypotensive effects, the patient should be kept under observation (preferably lying down) for some time after the initial parenteral dose. If, on rare occasions, hypotension does occur, it can ordinarily be controlled by placing the patient in a recumbent position with head lowered and legs raised. If a vasoconstrictor is required, 'Levophed' and 'Neo-Synephrine' are the most suitable. Other pressor agents, including epinephrine, are not recommended because phenothiazine derivatives may reverse the usual elevating action of these agents and cause a further lowering of blood pressure.

Antiemetic Effect: The antiemetic effect of 'Thorazine' may mask signs of overdosage of toxic drugs and may obscure diagnosis of conditions such as intestinal obstruction and brain tumor.

Dermatological Reactions: Dermatological reactions have been reported. Most have been of a mild urticarial type, suggesting allergic origin. Some appear to be due to photosensitivity, and patients on 'Thorazine' should avoid undue exposure to the summer sun.

Neuromuscular (Extrapyramidal) Reactions: With very high doses of 'Thorazine', as frequently used in psychiatric cases over long periods, a few patients have exhibited neuromuscular (extrapyramidal) reactions which closely resemble parkinsonism. Such symptoms are reversible and usually disappear within a short time after the dosage has been decreased or the drug temporarily withdrawn. These reactions can also be controlled by the concomitant administration of an anti-parkinsonism agent (see *Physicians' Desk Reference*). Depending on the severity of the symptoms, suitable supportive measures such as maintaining a clear airway and adequate hydration should be employed. When 'Thorazine' is reinstituted, it should be at a lower dosage.

Lactation: Moderate engorgement of the breast with lactation has been observed in female patients receiving very large doses of 'Thorazine'. This is a transitory condition which disappears on reduction of dosage or withdrawal of the drug.

CONTRAINDICATIONS

'Thorazine' is contraindicated in comatose states due to central nervous system depressants (alcohol, barbiturates, narcotics, etc.) and also in patients under the influence of large amounts of barbiturates or narcotics.

SUPPLIED

Tablets, 10 mg., 25 mg., 50 mg. and 100 mg., in bottles of 50, 500 and 5000; 200 mg., for use in mental hospitals; in bottles of 500 and 5000. (Each tablet contains 10 mg., 25 mg., 50 mg., 100 mg., or 200 mg. of chlorpromazine hydrochloride.)

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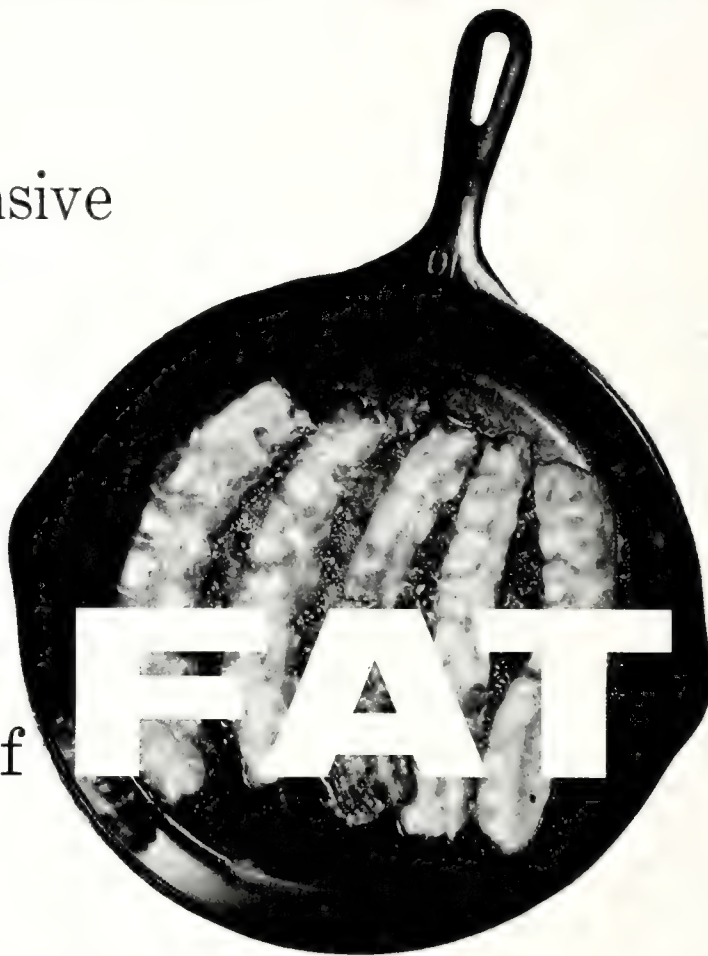
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Compulsion Versus Freedom of Choice

LEONARD W. LARSON, M.D.

BISMARCK, NORTH DAKOTA

We are engaged in a historic struggle to preserve our country's unique system of medical care and our stature as a profession. Both are seriously threatened by current proposals to incorporate health care benefits into the Social Security system.

Because of this threat, I shall devote my entire time today to a discussion of the issues involved—why we fight, how our opponents are attacking, how we are answering the challenge, and the legislative outlook.

Why We Fight

First, why do we fight? We fight because we have dedicated our lives to providing the best medical care possible to all our patients—we fight for our patients and their well-being. We fight because the Administration's medical care proposal, if enacted, would certainly represent the first major, irreversible step toward the complete socialization of medical care. A proposal which places the primary responsibility for the purchase of health care on the federal government, financed by compulsory payroll taxes and equivalent taxes on employers, administered directly by the Social Security Administration, providing benefits without regard to financial need, and for which the federal government has no logical responsibility—certainly such a proposal can properly be categorized as "socialized medicine."

The immediate objective of this legislation is to substitute compulsion for volun-

tarism in the financing of health care. It is to substitute decision-making by a small elite corps of federal administrators for the independent decisions of millions of consumers of medical service. As one candid authoritarian said, "Individuals cannot be trusted to spend their medical care dollars prudently."

The compelling issue then is socialization versus voluntarism—or compulsion versus freedom of choice. As Professor Milton Friedman of the University of Chicago said recently: "Fundamentally there are only two ways in which the activities of a large number of people can be coordinated: By central direction, which is the technique of the army and of the totalitarian state and involves some people telling other people what to do; or by voluntary cooperation, which is the technique of the market place and of arrangements involving voluntary exchange."

We are *for* voluntarism. We do not believe that Americans, acting either as citizens or as patients, require central direction from government in their choice of doctor or hospital, in the spending of their health care dollars, or in their selection of the health services and facilities best suited to their own individual needs.

Only in the case of the needy or medically needy should government intervene. We vigorously support the Kerr-Mills Medical Aid for the Aged Act because it is tailored to help those who need help. Through federal grants-in-aid the states are being assisted in developing medical care programs specifically planned to help needy oldsters. Given time, and notwithstanding constant efforts by the Department of Health, Educa-

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Published on the unanimous recommendation of the House.

tion and Welfare to sabotage and discredit the program, the Kerr-Mills Act will solve the health care needs of the relatively insolvent aged.

Another great issue—one which merits far more emphasis than it has received—is the constitutional question of the relations between the federal government and the states. The King bill abrogates the rights of the states, since the program of health benefits is administered directly from Washington. All rules and regulations are promulgated in Washington. All eligibility requirements are established in Washington both for recipients of benefits and the vendors of care.

Compared with the proposed federal aid to education bills, the King-Anderson bill is truly extreme in its circumvention of the states and local communities. The aid to education bills did provide for local administration. Imagine the universal opposition to these bills, if they, like the medical aid bill, provide for direct federal payment of teacher's salaries. Yet this is exactly what the King bill does for hospitals, nursing homes and thousands of physicians.

This bill is, in truth, one of the most destructive proposals affecting the federal-state relationship ever introduced in Congress.

What do we stand for? We take our stand for voluntary cooperation, for preservation of the historic federal-state organizational structure, for individual responsibility, for help for those persons who *need* help.

We are *for* an improved public attitude toward older citizens. We are *for* their integration into the mainstream of society. We urge liberalization of retirement policies in industry to permit continued productivity of older employees and their employment in any capacity for which they are qualified. We are *for* measures designed to protect the earning capacity of those who can take care of themselves. We supported the bill for federal guaranteed mortgage loans for private nursing homes and Hill-Burton federal grants for nonproprietary nursing homes. Our sponsorship of national congresses on mental illness, quackery,

voluntary health insurance, Kerr-Mills implementation, and aging is familiar to you.

We are *for* a free profession, not an enslaved one. We are *for* the preservation of our constitutional republic; we are *opposed* to a welfare state. We are *for* the right of our citizens to spend their own dollars in their own way, not for Washington authoritarians to spend their money for them. Our philosophy is wholly positive. It reflects the spirit that lives throughout American history—the philosophy that a dynamic, progressive society is the result of the voluntary actions of a free, responsible people.

Tactics of the Opposition

No matter how positive our position we must understand the tactics of our adversaries if we want to assure victory.

What are some of these tactics?

The proponents of King-Anderson type of legislation have cleverly promoted the false idea that earmarked payroll and employer taxes would be voluntary prepayments against the cost of health care benefits received subsequently in retirement. The fact is that the King bill levies a compulsory tax on young workers and their employers to pay for a federal program of health benefits for older people, millions of whom are self-reliant and solvent. The King-Anderson program does not provide insurance or prepayment of any type, but compels one segment of our population to underwrite a socialized program of health care for another, regardless of need.

We urge all Americans to look this gift horse in the mouth, because if we don't the consequences could be tragic. Wilbur Cohen, Assistant Secretary of HEW, made the following admission under questioning by Senator Carl Curtis of Nebraska (March 23, 1961). The Senator asked this question: "If compulsory health insurance was extended to everybody, the total payroll tax would be up to 19 or 20 per cent. If it was a 20 per cent rate, the self-employed rate would be 15 per cent. With a \$9,000 taxable wage base, the maximum tax on the employee and employer would be \$900 each; and the maximum tax on a self-employed person would be \$1,350, if we do what you advocat-

ed today plus what you advocated in 1946.

"Do you feel that as much of that man's earnings of \$9,000 as a Federal tax source should be devoted to this one single program of social security as is available to help finance all other activities—the functions of the Government, the paying of the National debt, and the defense of our country?"

Mr. Cohen's reply: "Yes, I do, Senator."

To sum up this historic colloquy—down the road is envisioned a federal program of total benefits that would cost more than all other government functions and expenditures, financed by a total tax of 20 per cent on all earnings up to \$9,000.

Vilification of the A.M.A. has been a principal tactic of our opponents, led by the Administration and the AFL-CIO. An enormous smear campaign was launched. It is being carried out by labor's radio and TV outlets, the labor press, some commentators, and certain government spokesmen.

Read the testimony of labor's witnesses before the Ways and Means Committee, July, 1961, when the major portion of their testimony was directed against A.M.A. The King bill became almost a side issue. Or look at the statements prepared by COPE and given wide distribution purporting to prove that A.M.A., on 25 selected issues from social security to smallpox vaccination, opposed every one. Every citation is false, every A.M.A. policy distorted or maliciously misrepresented. Or, more recently, observe Secretary Ribicoff's attempt to cast the A.M.A. as a monolithic, dictatorial organization exercising sanctions against our members who disagree with the leadership—a totally false accusation made purely for its propaganda effect. The latest story planted by an Administration spokesman is that the A.M.A. has been joined by the National Association of Manufacturers and the U. S. Chamber of Commerce in a massive 20 million-dollar campaign against the Administration's medical care program. This statement is absolutely false. It is the old technique of building up your adversary to make you appear the underdog.

We can expect even more bitter attacks in the year ahead. As Allan Drury pointed

out in his great novel "Advise and Consent," the orchestrated chorus of the left is potent, virulent, and tireless.

Labor depends to a major degree upon its political arm, COPE, to win its legislative battles. This one is no exception. Congressmen are now feeling the full force of support or threat depending on their vote on this issue. Our friends in Congress need our support—and this does not mean only a friendly letter. It means contributions in money and personal campaign assistance. AMPAC now provides us a national mechanism through which physicians and their families can channel funds for strategic placement where the money will do the most good. I urge you to respond generously when your help is requested.

The latest attempt of labor and the Administration to build pressure on Congress is the organization of the National Council of Senior Citizens for Health Care through Social Security. This is a purely political group of older people headed by ex-representative Aime Forand and staffed by a former undersecretary of HEW. In announcing the formation of the National Council, Mr. Forand bluntly stated:

... The primary purpose ... is to weld senior citizens organizations and millions of interested individuals from all over the country into one strong and effective voice in Washington. Our immediate goal is to secure legislation providing health care for the aged through Social Security ...

I believe, however, that the vast majority of our older citizens is self-reliant. Further, I believe that when the true objectives of this lobbying organization are made clear to them, and when they realize that they are being manipulated—cynically—as political pawns, they will make their feelings known.

Much of the crisis atmosphere created by the King-Anderson proponents derives from the carefully propagated myth that practically all persons over 65 are insolvent and necessarily depend on government for their health care. Of course, there is a sizeable group of such persons. Approximately 2.3 million of the 17 million persons over 65 are on public assistance today, and another

indeterminate number, while not on public assistance, has difficulty in meeting the costs of major illness. For these groups the Kerr-Mills bill was enacted in order to provide more ample funds and broader health benefits. Millions of other persons over 65 are able to pay the total cost of health care out-of-pocket, or they have health insurance or prepayment coverage of some kind.

However, it is the dramatic change in the economic status of the aging that is most noteworthy. Today, only 14 per cent of the aged over 65 are on public assistance, whereas 22 per cent were receiving public aid in 1950. Today, more than 53 per cent of all persons over 65 have some kind of health insurance as contrasted with only 26 per cent in 1952. In many respects, the aged group is better off than any other group in the nation. Their liquid assets are higher, and have risen faster than any age group; a much higher percentage own their homes free of mortgages; their financial obligations are significantly less and they enjoy tax advantages not available to younger citizens. Hospitals report they have less difficulty obtaining payment from patients over 65 than from younger patients. The growth of annuity plans, company purchase of health insurance benefits for retired employees, life insurance accumulation and many other factors have led to a significantly more favorable economic situation for our older citizens than has ever been true previously. Competent economists predict that this improvement will continue at an accelerating pace. We are, then, dealing with a diminishing problem which belies the crisis propaganda of our opponents.

Proponents of the King-Anderson bills have made a real effort to win church support. In February, 1961, the Board of the National Council of Churches, which is a federation of most Protestant denominations, endorsed the principle of the King bill. Later in the year, however, four of its most important affiliates rejected similar resolutions. The United Presbyterian, Episcopal, Disciples of Christ, and American Baptist Convention all refused to endorse federal medical care for the aged under social security. The Catholic church has

taken no official position on the bill.

It is no secret that within the hospital and Blue Cross groups there are some individuals who, at this time, are leaning toward a federal program directed from Washington which would use the Blue Cross plans as fiscal agents. We have requested medical societies, and, where appropriate, individual staff physicians to contact hospital administrators and trustees to acquaint them with our position and to explain the reasons for it. We have urged our medical representatives not to impugn their motives but to recognize their thorny fiscal problems and to discuss with them these controversial issues in an atmosphere of mutual trust. We hope these conversations will have two results: To strengthen the majority of American Hospital Association and Blue Cross members in their opposition to the King-Anderson approach, and, even more, to lead to constructive joint actions to meet the admittedly difficult financial problems of some hospitals and the Blue Cross plans especially.

Our Answer to the Challenge

I have sketched in broad outline the chief tactics of those who favor the King-Anderson bill. Now, what is the nature of our own campaign?

In December, 1960, we made it clear that, notwithstanding the election of an Administration dedicated to the King-Anderson program, we intended to fight this proposed government takeover of medicine to the limit of our ability. As physicians, we knew what this legislation would mean, not only to our freedom as a profession, but, more important, to the long-range welfare of our patients. We knew that when physicians are forced to become pawns of federal administrators and politicians, rather than responsible to their patients, it adversely affects the quality of care.

Only now reports to this effect are beginning to come from distinguished economists in England. Professor D. S. Lees concludes:

The fundamental weaknesses of National Health Service are the dominance of political decisions, the absence of built-in-forces making for improvement and the removal of the

test of the market. These defects bring dangers for the quality of medical care that cannot be removed without far-reaching reform. We should aim to diminish the role of political decisions and to enlarge the influence of consumer choice. Governments should move away from taxation and free services to private insurance and fees by allowing tax concessions to those who can provide for themselves, and direct assistance to the dwindling minority who cannot. To those in England who object that the clock is being put back, we must reply that it is desirable to put the clock back if it is telling the wrong time.

We have achieved our initial objective of arousing physicians and alerting Congress to the soundness of the Kerr-Mills approach and the dangers inherent in the radical King-Anderson proposal. We are now engaged in stimulating effective action by state and county medical societies, individual physicians, Women's Auxiliaries, and others.

We are telling our story as widely and forcefully as possible, and through as many avenues as we can devise, to the public and the members of Congress.

Special efforts are being made to correct the falsehoods disseminated by the proponents of King-Anderson legislation.

In our fight we do not stand alone. Many other great national organizations, as well as millions of individual citizens, are firm in their opposition to socialized medicine. When we are under heavy attack, we should remember that in our ranks are the American Farm Bureau Federation; the insurance industry; the Blue Shield Plans; the pharmaceutical associations, manufacturing, wholesale and retail; the American Dental Association; the Federation of Business and Professional Women; the young men of the Junior Chambers of Commerce and Young Americans for Freedom; the U. S. Chamber of Commerce—and many more organizations. No, Mr. Ribicoff does

not speak for all 180 million Americans as he has repeatedly declared. Every state and county medical society, every physician and his wife, should work closely with these organizations, dedicated as we all are to a free society.

Primary attention will continue to be given to implementing the Kerr-Mills Act, promoting voluntary health insurance and prepayment plans designed for the aged, and upgrading nursing homes.

We will strive to create a new climate of hope, pride, and self-reliance for the aged.

Predicted Outcome

What outcome do I predict in this titanic struggle facing us? Predictions are always difficult because, as Roger Fleming of the Farm Bureau says, "I am not a bookie, I'm a jockey!" We need to ride hard, with courage and determination and the will to win. If we do, I predict the King-Anderson bill will be defeated in Congress in 1962.

I cannot close with more appropriate remarks than those made recently by Senator Kerr in a talk before a group of physicians when he said:

"I would not discourage you, because the task is not hopeless—but it's not self-executed. You have probably the greatest opportunity of any generation of your profession that has ever lived, and all future generations of your profession are going to know whether or not you did your part in keeping the environment for them that has been such a blessing to you. If you do what you are capable of doing and the rank and file of those identified with you across the nation join you, you can tell your children that you made the fight that kept for you the environment which has been your blessing—and passed it on, unimpaired and unsullied, to those that you love even more than you do yourself."

Give the new graduate and potential student early encouragement and a staff to lean on and you need not fear state medicine . . . What the prospective student needs most is to feel *really* wanted.—Stephen M. Mallon: Correspondence, Canad. M.A.J.

The "Hidden" Alcoholic in the General Hospital

*A Study of "Hidden" Alcoholism in White Male Patients
Admitted for Unrelated Complaints*

WILLIAM S. PEARSON, M.D.*

RALEIGH

While working on a research project and searching for non-alcoholic control subjects in the medical and surgical wards of North Carolina Memorial Hospital and in Gravelly Tuberculosis Sanatorium during the summer of 1957, I was impressed by the number of patients I encountered who admitted having an alcoholic problem, but whose clinical charts contained no evidence of consideration of this problem in the diagnostic work-up. During the following year of clinical clerkship the high incidence of a co-existing problem of chronic alcoholism in patients admitted for ostensibly unrelated illnesses became more apparent to me.

After perusing some of the medical literature in search of evidence to substantiate this impression, I resolved to conduct personal interviews on the medical and surgical wards of North Carolina Memorial Hospital, using an appropriate questionnaire, to discover just what percentage of the total adult white male patients had a history of chronic alcoholism, and what percentage of these had been recognized by the attending personnel.

Introduction

Alcoholism is today a major health problem, outranked only by cardiovascular and mental disorders in incidence¹. Most reliable estimates indicate that there are more than 5 million alcoholics in the United States, 4½ million men and 3/4 million women². One of every 13 men aged 20 or over is an alcoholic³. Of these, only about 7 percent are known to be on "skid rows," and only 6 percent are known to clinics, hospitals, and Alcoholics Anonymous³. Where are the others? The answer seems to be that they are "hidden," hidden, that is, from general recognition.

"Hidden" alcoholics—those who drink surreptitiously to keep their addiction secret—far outnumber the habitués of skid

rows. The former rather than the latter should be considered "typical" alcoholics⁴. Even though they have severe problems, they maintain fairly stable employment and some stability in marriage³. Yet they steadily deteriorate. An alcoholic of this type is able to conceal his excessive drinking from employers, friends, and often even his family physician. He may complain of various symptoms that are a direct result of excessive drinking, or that are aggravated by it, yet in no way indicate to the physician the extent of his addiction⁴.

Physicians are treating alcoholics in many cases without the benefit of knowing that they are alcoholics. Because of his compelling need to keep his addiction hidden, usually he will not report to a physician the full extent of his drinking or its effect on his general health⁴. Alcoholism is, however, a chronic and progressive debilitating disease; and, if it is not arrested, an entire gamut of medical and neuropsychiatric complications set in^{1a, 2b, 5}.

Many reports in the literature indicate significant associations between various disease syndromes and alcoholism. The following are only a few: Cirrhosis, pellagra, and gastritis were found as medical complications in 25 per cent of a large series of alcoholics reported by Keller^{2b}. Neurologic disorders, such as peripheral polyneuropathy, Wernicke's encephalopathy and Korsakoff's psychosis, have been traced to nutritional deficiencies associated with alcoholism^{2b, 5a}. Many observers have noted a higher incidence of tuberculosis among alcoholics, as well as the high incidence of alcoholism among hospitalized tuberculous patients^{2b, 6}. While searching for non-alcoholic control subjects for a research project during the summer of 1957, I was much impressed to find that of 20 adult white male patients in Gravelly Tuberculosis Sanatorium, only 2 could be considered to have a history free of alcoholism.

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In a study of 201 patients with cirrhosis and a definite history of alcoholism reported by Pollard^{5d} in 1959, associated diseases were: 32 with chronic lung disease, 19 with diabetes mellitus, 17 with peptic ulcer, 17 with cholelithiasis, 14 with hypertension, 13 with malignant neoplasms, 9 with congestive heart failure, 4 with pancreatitis, and 3 with myocardial infarction.

Basic Postulates

Many patients admitted to general hospitals with complaints ostensibly unrelated to alcoholism actually have an alcoholic problem which may contribute significantly to the etiology, chronicity, or poor response to treatment of the illness for which they are admitted. This problem is often unrecognized by attending medical personnel, or is given inadequate consideration in the general work-up and disposition of the case. There is an obvious need for physicians to develop a better understanding of the physical and mental effects and medical implications of chronic alcoholism, and to cultivate a high index of suspicion for this common disease in its less obvious but most prevalent form—that is, before Laennec's cirrhosis, Wernicke's encephalopathy, Korsakoff's psychosis, or delirium tremens becomes manifest.

Method

I proposed to interview 100 patients aged 20 or over, my choice being influenced only by the medical condition of the patient when too ill to be interviewed, or by whether or not I could obtain permission to interview from the attending personnel. The problem of constructing a simple but pertinent questionnaire was a real one; but, using the criteria for alcoholism reported by Jellinek and published by Alcoholics Anonymous, I was able to construct a list of signs and behavioral characteristics which are generally sanctioned as specific for alcoholism as differentiated from "social drinking"^{2a, 7}. Of the many criteria given, six were considered highly characteristic and diagnostic^{7a}. These were:

1. Alcoholic blackouts (periods of amnesia during intoxication).

2. Sneaking and gulping of drinks.
3. Loss of control of intake.
4. Morning "eye openers".
5. Loss of friends, family, or jobs due to drinking.
6. Hospitalization due to drinking.

Of these "major criteria," it was arbitrarily decided to require admission of co-existence of four or more before classifying any patient as having a definite history of alcoholism. I realized that many patients would not admit to all the signs for various reasons, even though they would admit to some of them if approached in a non-critical and non-accusatory manner.

I knew that discrepancies in my interviewing technique and conditions on the wards (where patients are well within hearing distance of each other) would certainly interfere with the establishment of rapport in many cases. I also knew that because of this fact, many subjects would not be completely truthful if asked only about their drinking habits. Therefore, I devised a general questionnaire with which I hoped to convey the impression that I was investigating general habits and opinions to acquire material for a student paper. A good deal of time was spent on these matters before questions regarding the patient's personal drinking history were broached.

Several patients who refused to admit that they had experienced some of the symptoms mentioned, such as black-outs, sneaking and gulping, or loss of control of intake, nevertheless gave a history strongly suggestive of alcoholism. These patients, when not admitting to four or more of the major criteria, were not included as alcoholics in the final results, but were listed as "suspected." Patients giving positive answers to four or more of the major criteria were included in the final analysis as "probable alcoholics."

Many interesting incidental findings were brought out by the general questioning on opinions and other habits, but these will not be included here except to remark that 27 of the 29 patients with a positive history of alcoholism had a "condemnatory attitude" toward drinking in any form. It is recognized that some patients with alcoholic prob-

TABLE 1
TABULATED RESULTS OF THE SURVEY

	Non-alcoholics	Suspected	Probable alcoholics	Total Interviewed
Surgical wards	21	6	11	38
Medical wards	41	3	18	62
Total results	62	9	29	100

lems were probably not detected, but it is doubtful that patients would answer affirmatively to questions placing them in the alcoholic group unless the problem did, in fact, exist.

Results

Table 1 shows the results of this survey. It will be noted that 38 patients were interviewed on the surgical wards and 62 patients on the medical wards. Of the 38 surgical patients, 11 gave histories positive for alcoholism according to the criteria; and 6, though vague and evasive, gave histories suggestive of alcoholism. Of the 62 medical patients, 18 gave positive histories and 3 were suspected.

A review of the clinical charts of the 29 patients with positive histories revealed that their problem drinking had been mentioned in 12 cases (4 on surgery and 8 on medicine), but that there was no mention of excessive drinking in 17 cases (table 2). (One patient on the medical service had alcoholism as the admitting diagnosis.) Whether or not the alcoholic history had been seriously considered in the evaluation and treatment of the patients in which it was recognized could not be adequately determined by merely perusing the charts, but there was little mention of it and rarely if ever, in connection with the disposition or plans for treatment and management.

It will be recalled that according to the latest most reliable estimates, 1 of every 13 men aged 20 or over is an alcoholic; however, the results of this study suggest that among admissions to North Carolina Memorial Hospital, the incidence is much higher—closer to 1 of every 4. The implications of this finding are many and could be the subject for much further study, but this is beyond the scope of the present project.

Discussion

Alcoholism is a chronic, progressive, and addictive disease characterized by a craving for alcohol and its effect—a subjective state of well-being. The onset of the disease is based initially on a complicated psychologic disturbance and facilitated by social and cultural factors. Once the susceptible individual has begun to drink excessively, a series of processes ensues—addiction, nutritional deficiencies, involvement of various organ systems, and progressive psychologic impairment. These processes lead to further serious impairment of the organism at all levels of integration, with the development of a multitude of characteristic complications—medical, neuropsychiatric, psychologic, social, and vocational. The natural course of the disease is usually a progressively downhill curve on which there may be superimposed exacerbations and remissions. Or, alcoholism may also be described in simple terms as drinking that brings about for the drinker or people around him serious problems in physical, mental, family, social or economic areas⁸.

"Hidden" alcoholics often go to physicians because of symptoms referable to alcoholism, but continue to conceal their addiction and so make diagnosis difficult. Hence physicians, on observing certain symptoms that cannot be readily attributed to a pathologic change, should make searching inquiry into the patient's drinking habits; for not until the definitive diagnosis is made in such cases, can there be hope of effective treatment.

The importance of obtaining an *accurate* history of the patient's characteristic response to alcohol cannot be overemphasized. Where alcoholism is suspected, the physician should carefully check the history of

TABLE 2

REVIEW OF HOSPITAL CHARTS FOR 29 "PROBABLE ALCOHOLICS"

Alcoholic problem mentioned	12 (4 on Surgery, 8 on Medicine)
No mention of drinking problem	17 (7 on Surgery, 10 on Medicine)
Liver function tests done on alcoholic patients	12 (10 of these had alcoholism mentioned in clinical chart) (6 were positive for decreased liver function and 1 with results not yet recorded in chart)

the patient with the spouse or some other member of the immediate family. (Unfortunately, this could not be done for all of the 100 patients interviewed in the present study, and I suspect that the percentage of positive cases would have been larger if it had.) If a positive history of alcoholism is obtained, the patient should be confronted with the diagnosis and advised to face the problem and the need for treatment⁶.

Clues to Diagnosis

One reason that physicians may be failing in many cases to recognize alcoholism as the underlying cause of physical symptoms is the popular misconception of the "typical" alcoholic. Hence it would seem helpful to review some of the characteristic signs and symptoms of excessive drinking.

According to O'Hollaren, the facial appearance is the first area affected overtly by alcoholism⁹. The capillaries of the conjunctivae become engorged; however, the physician may not associate this condition with alcoholism, since in most instances an alcoholic who comes for medical treatment will take care not to appear under the influence of the drug. More commonly, the skin and subcutaneous tissues of the face and forehead appear puffy and edematous. As alcoholism progresses, this facial edema leads eventually to the development of deep grooving at the corner of the eyes as well as throughout the skin of the forehead, face, and cheeks. In underweight or emaciated patients, however, this picture is not as impressive. In persons with fair complexion, flushing of the skin is common, with pronounced hyperemia which, after a long

period, may develop into the "whiskey nose." Edema may also be observed in the nasal mucous membrane, the posterior pharynx and extending into the larynx and the vocal cords—causing the common "stuffy nose" and the hoarseness so prevalent in overt alcoholism.

Alcoholic tremor is one of the most common physical changes associated with prolonged excessive drinking, and it may persist for several days after the patient has ceased to drink. It is aggravated when the patient attempts to stop drinking, and is temporarily relieved by further ingestion of alcohol.

There seem to be no characteristic physical changes in the heart, lungs, abdomen, or lower extremities which could be considered typical of alcoholism. However, a bounding pulse and moderately severe tachycardia is common during withdrawal. Perhaps the most common pathologic change in the stomach is alcoholic gastritis, which is manifested by loss of appetite, and frequent periods of nausea and occasional vomiting following a drinking episode, especially upon arising in the morning. Blood in the vomitus, gross or occult, is often found. Evidence of irritation of the lower intestinal tract is also common—either obstipation or severe diarrhea⁴. However, the absence of any of these signs and symptoms should not be taken as excluding a possible diagnosis of alcoholism.

The incidence and severity of traumatic accidents is thought to be much higher in chronic alcoholics, and the physician would do well to be alerted to the possibility of alcoholism in patients presenting unusual

or vague stories involving the circumstances surrounding traumatic accidents, either old or recent.

Only by gathering more information as to why some individuals are more sensitive to alcohol than their social drinking friends, and by developing techniques and indices whereby such individuals can be detected, singled out and treated, can we hope to save many persons from reaching the advanced stages of alcoholism¹. Until such a diagnostic tool is available, the medical profession should remain constantly alert to the scope and characteristics of alcoholism so that a more accurate total diagnosis can be made and treatment rendered to the "hidden" alcoholic.

Summary

One hundred adult white male patients, aged 20 or over, were randomly interviewed on the surgical and medical wards of North Carolina Memorial Hospital for the purpose of determining what percentage of patients admitted for complaints ostensibly unrelated to alcoholism did in fact have a history of alcoholism. A second purpose was to determine how many patients with positive histories for alcoholism had been detected by attending physicians. It had been my impression that many alcoholic patients never mentioned this problem to their physicians, and that many physicians were not alert to the medical implications of alcoholism prior to the advanced stages of obvious physical and mental deterioration.

Of the 100 patients interviewed 29 gave positive histories for alcoholism; 9, though not fulfilling the arbitrary requirements for classification as alcoholics according to the criteria used, gave histories making them suspected. Only 12 of these had any mention of their alcoholic problem in their hospital charts.

Some of the medical implications of hidden alcoholism are discussed and suggestions which may be helpful in early detection of alcoholism are offered. The etio-

logy and treatment of alcoholism are subjects beyond the scope of this paper and are not discussed here.

Acknowledgements

The author is grateful to Dr. Charles H. Burnett, Head of the Department of Medicine, and Dr. Nathan A. Womack, Head of the Department of Surgery, for permitting me to interview patients on their services; to the attending personnel on the medical and surgical services for their enthusiastic interest and cooperation; to Dr. Myron G. Sandifer, Jr., assistant professor of psychiatry, and Dr. John H. Schoppler, assistant professor of psychology, for their helpful comments in the editing of this manuscript; and, particularly, to Dr. John A. Ewing, associate professor of psychiatry, for his unflagging enthusiasm, encouragement, and advice during all phases of study and in the preparation of this paper.

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Motivating the Acutely Intoxicated Alcoholic Patient to Obtain Further Treatment

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RALEIGH

The period following an episode of acute alcoholism is crucial with respect to motivating the patient to accept help in the future. Generally it is regarded as the time in which the patient is caught with his defective defenses shattered—defenses such as denial, defensive grandiosity, projection, and rationalization. For once, reality is overwhelmingly apparent: he cannot “hide behind his figure,” and his physical anguish is great. He fears the loss of his wife, his job, his mind, and even his life. Rebound guilt is emerging and beginning to torment him. He needs to be babied, to be taken care of, to be loved as he really believes he is—that is, as a completely worthless person, a belief masked, of course, by a defensive grandiosity. The very needs that he has tried so desperately to deny, or so futilely to satisfy from his environment, are exposed and intensified.

While the patient is still intoxicated, the administration of medical treatment by the doctor, without the implication, “Oh, no, Mr. Jones, not another bender!”; or “Look, Mr. Jones; I am helping you, but I expect you to be good and behave in the future,” is of the utmost importance. Sympathetic concern for his physical and mental anguish without a word or a gesture that may be taken as critical, judgmental, or high-handed advice (advice he has had in abundance) not only makes him more receptive for the subsequent interview but is psychotherapeutic in itself.

Among the qualities and attitudes required for effective work with alcoholics, Vogel lists the capacity to give affection; strength without domination; honesty; freedom from contempt; understanding without condescension; humility, and consistency.

Factors that can affect the attitude of the therapist adversely are as follows:

1. *The word “alcoholic” itself.* In U. S. culture the word “alcoholic” is invested with emotion—often intensely. At least the

therapist should know his own feelings about the word, and not allow moralistic attitudes to interfere with his effectiveness.

2. *The patient's facade of normalcy.* His facade often stimulates the therapist, and even the patient, to say: “Come on; pull yourself together and stop drinking.”

3. *Irritating points of the patients personality.* Elements of the patient's personality often frustrate, anger, or invite the therapist to patronize and indirectly to make an infant of him. (The latter the patient both craves and despises—the ambivalence which is evident in so many aspects of his drinking problem.) Another factor pertinent to the anger that the therapist may feel is that the patient's intermittent sprees, his irresponsible behavior, represent a kind of taking leave from duties and conventions. Seen in another, such irresponsibility awakens in us a deep-seated longing to be children ourselves once more.

4. *Alcoholics are usually regarded as poor clients* (in reality untrue). That is to say, they may not pay; they may never come back; or they may leave in anger and tell others what a bad doctor you are.

The Post-withdrawal Interview

As the patient begins to recover from his physical withdrawal symptoms, a frank interview between doctor and patient is in order. The purpose is to confront the patient with his problem and to take inventory of his resources for dealing with it. The word “alcohol,” in my opinion, should be divested of the emotion deriving from the patient's hopeless fight “to lick the stuff.” Questions such as, “Are you a happy person?”; “What has happened in your life?”; “Is your nightmare connected with alcohol?” should be asked. The patient is now ready to answer that, no, he is not happy, and that his unhappiness is indeed connected with his drinking. The therapist can then say, “Then you are an alcoholic and you

need help," thus bringing the problem into proper perspective, to borrow an expression from Brunner-Orne.

The next question might be: "Do you want to re-arrange your life to make it happier? You have this privilege, you know." The therapist can proceed to explain that it has been done before with help, and that resources are available in the community. "Have you considered using them?"

It is important to leave the choice to the patient, though he has to be maneuvered into making it. "I know it is difficult when you have been pushed around so much. I do not blame you for being scared you may be pushed more. In case you need care, I myself will be available. Here are the agencies, and here is the appointment day."*

At this point, the administration of some type of tranquilizing agent such as Librium, 25 mg. three times daily, or Mellaril, 100 mg. three times daily, may relieve the patient's chronic tension and anxiety, which often he is unaware of having. In addition to this effect, medication has a symbolic value for persons with oral dependency needs such as alcoholics have.

Arranging an appointment with an outpatient clinic or physician *there and then* is extremely important. Usually the patient will keep it, being convinced by the help he has already received that a physician is almost the only person in the long line of would-be helpers who is relatively free of

*After care outpatient clinics accepting chronic alcoholics for group psychotherapy, medication, and support are available in the following cities: Charlotte—Mecklenburg Public Health Center; Wilson—Eastern North Carolina Sanatorium; Raleigh—Outpatient Clinic, Dorothea Dix Hospital. These are in addition to community health centers throughout the state.

moral or personality biases, who is kind without being judgmental, and who respects him as an adult.

The Patient's Family

The problem of relatives is a thorny one. Often the patient wants to use the therapist as a club to bludgeon his wife, or the wife wants the physician to declare her husband a no-good person or a bum. The interview should make it clear (1) that the patient has the problem and because the world may respond with rejection and contempt, it is much harder; and (2) that what the therapist can do is try to help the family be more understanding and effective in supporting the patient's efforts to get well. It is recognized that in many cases some part of the family has a vital interest in the patient's remaining an alcoholic.

Conclusion

Helping the alcoholic patient and motivating him to continue treatment is no easy task. It taxes our maturity and our ingenuity, but it is also a challenge to our professional skill, our social responsibility, and our humanity.

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The patient's tolerance is always improved when he is reassured by his physician as to the meaning of his symptom. Once divested of mystery and fear, the threshold of acceptability of the particular symptom tends to rise. The physician, often unknowingly, relieves symptoms in this way when specific drugs to relieve perception are not available. Reassurance may sometimes be the most positive force by which he makes symptoms more acceptable.—Walter Modell in *Symptom Diagnosis*, edition 2, St. Louis, The C. V. Mosby Company, 1961, p. 45.

The Differential Diagnosis of Cardiac Murmurs in Asymptomatic Children

With Special Reference to Phonocardiographic Studies

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A frequent problem confronting the pediatrician is the evaluation of the asymptomatic child with a cardiac murmur. This discussion concerns the differential diagnosis of such murmurs in children in whom all other clinical and laboratory parameters are normal. By definition, we shall be dealing with a group of children who have either no organic disease or a very mild cardiac abnormality.

In spite of the fact that the hemodynamic derangement caused by milder organic lesions is insignificant, the distinction of the pathologic from the innocent murmur remains important. For instance, a child may have trivial mitral insufficiency as a manifestation of a previous episode of rheumatic fever. Nonetheless, it would be quite important to recognize this situation in order to institute prophylactic penicillin. A small ventricular septal defect should also be recognized, not because surgical correction of the lesion would be desirable, but so that the child may receive penicillin at the time of the oral surgery or other procedures apt to be associated with a bacteremia in order that subacute bacterial endocarditis might be prevented.

Types of Murmurs

Vibratory murmur

The commonest innocent precordial murmur is a low-pitched, groaning, often musical, early mid-systolic murmur which is maximal along the lower left sternal border or midway between the cardiac apex and the lower left sternal border (figs. 1, 2). Many terms have been applied to this murmur. A label currently employed is "vibratory murmur"—a reasonably good term referring to its nearby pure tonal character.

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In children with a vibratory murmur, all other aspects of the cardiac examination are within normal limits. When this murmur is most prominent along the lower left sternal border, it must be distinguished from that of an interventricular septal defect. The latter is holosystolic, usually louder, higher pitched, and noisy rather than musical. It is frequently associated with a thrill, and is transmitted radially for some distance. The holosystolic nature of the murmur of interventricular septal defect is an extremely important distinguishing feature.

Mitral regurgitation

When the vibratory murmur is most prominent somewhat lateral to the lower left sternal border, it must be distinguished from the murmur of mitral regurgitation. The latter is normally most intense at the apex, and excellent radiation to the axilla is common although not universal. The murmur of mitral regurgitation tends to be higher pitched than the innocent vibratory murmur. Of greater importance, however, is the fact that the former is holosystolic, whereas the latter is clearly early mid-systolic in timing.

Pulmonary ejection murmur

Another common innocent murmur is heard over the pulmonic area. This murmur presumably is associated with the rapid ejection of blood into the pulmonary artery and hence is appropriately termed the pulmonary ejection murmur (fig. 2). It is also early mid-systolic in timing, and is of low to medium pitch. It is loudest over the second left intercostal space parasternally, but usually transmits well to the left infraclavicular area and along the left sternal border. All other aspects of the cardiac examination are normal. The second heart sound undergoes the normal inspiratory increase in splitting.

The systolic murmur of atrial septal defect is an exaggerated pulmonic ejection

PHONOCARDIOGRAPHIC REPRESENTATION OF INNOCENT CARDIAC MURMURS

A. VIBRATORY MURMUR	
B. PULMONIC EJECTION MURMUR	
C. CARDIORESPIRATORY MURMUR	
D. ISOLATED SYSTOLIC CLICK	
E. VENOUS HUM	
F. CAROTID BRUIT	

Fig. 2. Schematic Representation of Innocent Murmurs

The phonocardiogram shows a typical vibratory murmur recorded over the third left intercostal space parasternally. Note the short silent gap between the first sound and the murmur. The murmur (SM) is composed of evenly spaced ("picket fence") deflections and ends well before the second heart sound.

ing and variability of these bizarre murmurs and added sounds.

The venous hum

A fourth type of common murmur is the venous hum (fig. 2). This murmur is generated by the rapid flow of blood in the supracardiac veins and is most prominent when the patient is in the upright position. The intensity and frequency of the venous hum undergo changes throughout the cardiac cycle. The most rapid rate of blood flow in the great veins occurs during the rapid filling phase of ventricular diastole. For this reason there is a proto-diastolic accentuation in both intensity and frequency of the murmur.

The commonest pathologic state which must be distinguished from the venous hum is *patent ductus arteriosus*. The latter is marked by a continuous murmur which is maximal over the pulmonic area. The venous hum, on the other hand, is most prominent in the right side of the neck, although

it may easily be heard along the right upper sternal border. The murmur of patent ductus is usually louder, and is associated with a late systolic rather than an early diastolic accentuation. The most important distinguishing feature of the venous hum is its disappearance when the patient lies down. Moreover, this murmur can be attenuated or made to disappear completely if the veins in the neck are occluded gently above the site of application of the stethoscope. Often, merely having the patient turn his head to the left will cause the hum to disappear.

Carotid bruit

Just as murmurs may be associated with the rapid flow of blood in the supracardiac great veins, they may also originate in the great arteries of the neck. The commonest of these murmurs is the so-called "carotid bruit," an early mid-systolic ejection murmur of brief duration (fig. 2). It is most commonly heard over the right side of the

neck, but a similar murmur, associated with the rapid ejection of blood into the great arteries, may be heard on the left side of the neck. Since the innominate artery receives a large bolus of blood, vibrations are quite prone to arise in this vessel and to be transmitted into the right side of the neck.

Carotid bruits and other arterial murmurs in the neck must be distinguished from organic murmurs which are transmitted to this region. Characteristically the murmur of organic aortic stenosis is well heard in the neck. However, it is almost invariably louder over the aortic area or along the mid and lower left sternal border.

The pulmonic ejection murmur, venous hum, and carotid bruit are associated with physiologic blood flow. All these murmurs may be accentuated in pathologic or physiologic situations associated with increased cardiac output, increased stroke volume, or decreased blood viscosity. Hence they may be expected to increase with exercise, during fever, or with anemia.

Application of the Phonocardiogram to the Differential Diagnosis of Cardiac Murmurs

The phonocardiogram offers a means by which cardiac sounds and murmurs may be graphically and permanently recorded. An example of the vibratory murmur is shown (fig. 1). Note the very evenly spaced ("picket fence") deflections which comprise the murmur.

The murmur of a small ventricular septal

defect differs considerably from the vibratory murmur in that it is almost always holosystolic and blends with both the first and second heart sounds. In rare instances, the murmur of a small interventricular defect may be only early and mid-systolic. This is believed to reflect an actual functional closure of the defect in late systole. Nevertheless, even in this unusual situation, the higher frequency of the murmur and a lack of slight separation of the murmur from the first heart sound should allow a proper diagnosis.

Phonocardiography offers valuable information as to the timing of the often bizarre cardiorespiratory murmurs and clicks. Figure 2C shows a murmur of this type which is introduced by two systolic clicks and continues to the second heart sound. Respiratory change in the clicks and murmur is indicated. Another example (fig. 2D) demonstrates an isolated mid-systolic click which disappears during expiration.

Summary

The differential diagnosis of cardiac murmurs in asymptomatic children is discussed. Illustrative phonocardiograms are presented. A careful stethoscopic examination will allow differentiation of most innocent murmurs. In puzzling cases, the phonocardiogram may be of great assistance to the physician in the timing and clarification of some of the more bizarre innocent murmurs.

... Patterns of reaction are not identical; each patient's individual life experience affects his reactions to symptoms. The symptom which is safe to pass over in one patient may be dangerous in the next; in one it may call up adaptive and protective reactions which are far more intense than the provocation would seem to warrant and disproportionate to the noxious stimuli. These reactions in turn may provoke further reactions.—Walter Modell in *Relief of Symptoms*, Edition 2, Mosby, p. 39.

Recent Advances in the Drug Therapy of Asthma

JOHN D. CHARLTON, M.D.

GREENSBORO

Before one can speak with meaning of specific drug therapy in asthma, it is necessary first to consider briefly the nature of the disease, and then to review the general role of drug therapy as an integral part of the comprehensive management of asthmatic patients. Current concepts regarding drug practices in asthma, in the light of personal clinical experience, then can be viewed in proper perspective.

Diagnosis of Asthma

Bronchial asthma may be recognized by two chief characteristics: (1) a history of wheezing, dyspnea, heaviness or tightness in the chest, and recurrent or exaggerated attacks of coughing, with or without partial or interim relief; (2) the varying combination of physical findings which include wheezing with prolonged expiration, rhonchi, musical rales, and evidence of obstructive emphysema.

Following the axiom, "All that wheezes is not asthma," we know asthma may simulate other diseases and other diseases may simulate asthma. Certain patients will react to any respiratory irritant with edema and spasm of the bronchi. Some of these persons may have an asthma diathesis, while others may be constitutional asthmatics, but this distinction is not always made as it should be for most effective treatment.

Non-allergic causes may be excluded only through a detailed history, complete physical examination, and laboratory and x-ray studies. The physician will be alert to acute and chronic laryngeal, tracheal, and pulmonary infection; new growths; foreign bodies; cardiovascular disease; hyperventilation; and other factors. Any of these alone may be responsible for the asthmatic picture or, in some cases, may serve to complicate allergic bronchial asthma.

These suggestions remind us that asthma

may not always be diagnosed quickly. Prolonged observation and a trial of therapy may be necessary. Theoretically, bronchial asthma is reversible, and favorable response to treatment ought to be the rule. Therapeutic failure may, on occasion, be the result of incorrect diagnosis. But full remission, we all know, is rare in asthma.

The Role of Drug Therapy

When allergic bronchial asthma is the probable diagnosis, it becomes necessary to initiate control over probable irritants. Many allergens can be removed from the environment, but others—especially pollens, molds, and dust—require hyposensitization with specific extracts. In allergy, the rational approach must continue to be to remove, or immunize against, offending allergens.

Clearly, drugs must be used in the management of asthma to meet the immediate challenge of relieving and controlling symptoms, especially in patients with severe or intractable disease. When control is gained, drugs are invaluable as prophylaxis against further attacks. Prevention of irreversible physiologic changes must be considered. The ideal anti-asthmatic drug has not been found. When it is, it will: (1) effectively control symptoms; (2) produce minimal or no side effects; (3) offer ease of administration; and (4) not interfere with the patient's daily pattern of life.

Steroids

In the drug treatment of asthma, one of the most significant advances of the past decade has been the introduction of corticotropin (ACTH) and the corticosteroids. These hormones apparently do not alter the basic disease process, and thus do not effect a cure. The precise mode of action is not known, but the corticosteroids change tissue reactions caused by adverse stimuli and are effective in suppressing symptoms. With a more recent corticoid such as triamcinolone (*Aristocort*, Lederle; *Kenacort*,

Read at the meeting of the American College of Allergists, Dallas, Texas, March 12-17, 1961.

Squibb) dosages required to suppress symptoms are usually less than with previous steroids. When used in self-limited conditions, hormones inhibit the pathologic process; when the disease has run its course, they may be omitted. In chronic diseases, these agents may be necessary for long continued maintenance dosage.

Corticosteroid therapy, of course, should never be employed routinely in asthma, but only when conservative but intensive management has failed to achieve satisfactory results. Properly, these valuable agents should be used only in chronic, static, crippling disease; status asthmaticus, acute exacerbations of pollen asthma, and in chronic asthmatics undergoing surgical treatment.

Expectorants

The usefulness of expectorant drugs in asthmatic patients is still being assessed. The efficacy of potassium iodide in both bronchitis and bronchial asthma has long been recognized. By lowering sputum viscosity while increasing its volume, expectorant agents can aid in dislodging plugs of mucus. One of the newer mucolytic expectorants is Organidin, a stable complex formed by the interaction of iodine and glycerol. This product apparently offers the therapeutic action of iodides, but the usual side effects of iodide therapy such as rash and gastric irritation are rare.

Various enzyme preparations such as deoxyribonuclease (*Dornovac* - Merck Sharp & Dohme), streptokinase and streptodornase (*Varidase*-Lederle), and hyaluronidase (*Hyazyme* - Abbott; *Wydase* - Wyeth; *Alidase* - Searle) are being used for their mucolytic effect and their ability to reduce edema and inflammation in the bronchi and bronchioles whether due to infection or other causes. Here might also be mentioned the use of other enzymes such as trypsin (*Parenzyme* - National; and *Tryptar* - Armour); and chymotrypsin (*Chymar* - Armour; *Chymoral* - Armour). The recent oral form of chymotrypsin (*Chymoral*) has added appeal because its efficacy apparently parallels that of the injectable form with very few, if any, of the side

effects. Though the full merit of these drugs is not fully determined, they represent definite advances in the search for more effective agents for dissolving the thick tenacious sputum of the asthmatic patient.

Antibiotics

Antibiotics have a definite place in the treatment of bronchial asthma—namely, to combat the upper respiratory infections which so often accompany the attack. Many allergists now recommend that these drugs be used also as prophylaxis. There is indeed good reason to believe that low daily dosages of selected antibiotics, especially during the winter months, can help prevent invasion by primary or secondary organisms which presumably are the cause of asthma in many cases and give rise to complications in others.

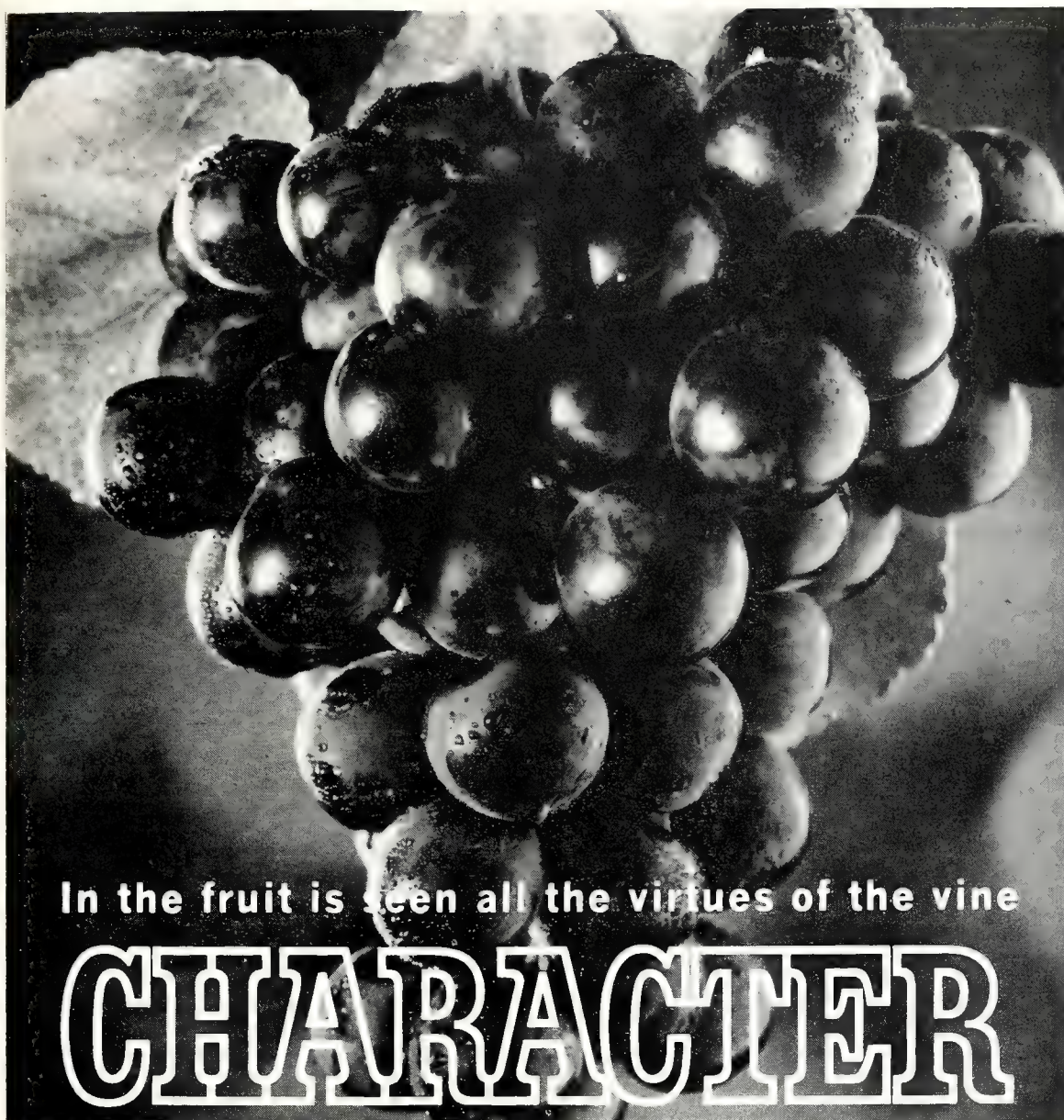
Antihistaminics

In this survey of available drugs, one should mention the antihistaminic group. Since these drugs were first introduced in the 1940s, many of them have found their place in the allergist's armamentarium. In allergic rhinitis of the episodic seasonal type, the antihistamines often afford nearly complete control of symptoms. They are less effective, however, in controlling chronic vasomotor rhinitis, with perhaps half of the patients receiving no benefit. In bronchial asthma, their use has been generally disappointing. Probably less than one fourth of these patients obtain relief.

Bronchodilators

Aminophylline, theophylline, epinephrine, relieve bronchospasm; the first two also provide valuable diuretic effects in pulmonary edema. Airway obstruction which fails to yield to sympathomimetic amines may be due to other causes not affected by these agents.

Aerosolized sympathomimetic agents may have a greater vasoconstrictive effect in the superficial layers of bronchial mucosa. Subcutaneously administered sympathomimetic amines may have a greater effect deep in the bronchial wall and on bronchial muscle spasm. It has been deemed advisable to



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5,000	7,500 to 15,000	75.00 Weekly	114.00	57.50	152.00	76.50
5,000	10,000 to 20,000	100.00 Weekly	150.00	75.50	200.00	100.50
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Originator and pioneer in professional group disability plans.

use both the subcutaneous and the aerosol routes in the treatment of the patient with severe or refractory asthma. Two of the newest and most effective "pocket-sized" sprays to relieve bronchospasm are the Isuprel Mistometer (Winthrop) and the Medihaler (Ricker). Both of these have been found very acceptable, even to children.

Few allergists would fail to agree that these injected or inhaled bronchodilating agents are the drugs of choice for immediate relief of acute asthmatic attacks. Yet opinions may differ widely in selection of drugs for sustained symptomatic relief and prophylaxis. One of the long-acting injectable epinephrine preparations that has received very favorable reports recently is Susphrine (Brewer & Co.). This product is an aqueous epinephrine suspension providing both immediate and prolonged relief of asthma. The requirements of the individual patient may vary, as do those of different patients. Certainly, no single medication can be used inflexibly. To depend on one favorite drug to the virtual exclusion of others is to be unfair to patients and to ignore the yearly advances of the pharmaceutical industry.

Ataractics

Whether one accepts wholly, partially, or not at all the idea growing out of Freud that emotional disturbances may lead to physical ailments, there can be no doubt that a disease such as asthma, which can be purely organic in inception, generates anxiety as it grows more severe and incapacitating. Inability to get enough air, as a threat to life, provokes fear which intensifies bronchoconstriction and mucosal edema. Mere sedation, with a barbiturate, for example, has not proved altogether satisfactory because of the concomitant depression of vital signs. Since the advent of the tranquilizing drugs of the last decade, therefore, many of these compounds have found an honored place in the management of asthma. Obvious justification for prescribing ataractics for asthmatics, in addition to the effect already mentioned, is to offset the stimulatory effect of the various sympathomimetic amines given these patients.

According to his own clinical experience and judgment, and out of regard for the particular needs of individual patients, the practitioner will use different ataractics on various occasions.

I have had both success and failure with some of the milder tranquilizing agents in managing the emotional overlay of asthma. Of the more widely prescribed products given trial, hydroxyzine hydrochloride, in my experience, provides the greatest margin of effectiveness with safety. This agent alone as Atarax (Roerig) has become known for its ataractic effects in the treatment of tense, neurotic individuals, but the drug possesses secondary pharmacologic properties of presumed added value in the treatment of asthma.

Various studies have shown hydroxyzine to be antihistaminic, anticholinergic, anti-serotonin, and antispasmodic in action. It is beyond the scope of this paper to pursue the variety of therapeutic implications of these pharmacologic effects. On the basis of empirical judgment, however, this drug seems to produce interlocking benefits which make it more useful in the control of asthma than the other tranquilizers or barbiturates used.

Clinical Report

Not all of us have maintained flexible views toward recent antiasthmatic drug preparations, perhaps feeling that they are all essentially alike and offer few advantages over those already being used. A brief report of clinical experience with a particularly useful combination of ephedrine and theophylline, which also contains hydroxyzine* instead of the barbiturate often

*Marax—A product of J. B. Roerig and Company, Division of Chas. Pfizer & Co., Inc. The content of each Marax tablet is as follows:

Atarax (hydroxyzine hydrochloride)	10 mg.
Ephedrine sulfate	25 mg.
Theophylline	130 mg.

Though not yet available commercially, a liquid preparation was provided by the manufacturer for investigative purposes. This proved to be unusually palatable, and was well accepted by patients, especially the children treated. Each teaspoonful (5 cc.) contained 2.5 mg of hydroxyzine; 32.5 mg. of theophylline; 6.0 mg. of ephedrine sulfate; and 50 mg. of glyceryl guaiacolate with 5% v/v ethyl alcohol and 0.3% w/v sodium benzoate as preservative.

Since this paper was prepared, the above liquid form of Marax has become commercially available.

included in a tablet of this kind, is given here. The results suggest that this particular combination represents progress in the chemoprophylaxis of bronchial asthma and allied disorders. Several other clinicians have already reported on their favorable experiences with the drug^{14, 15}.

Material and method

Included in this series were 96 patients, most of whom had been referred by their personal physicians. Ages ranged from 2 to 68 years, and some of the patients had been troubled by asthma most of their lives.

The majority of the patients presented bronchial asthma as the primary disease. Many had accompanying disorders which complicated the asthma. These included recurrent nasopharyngitis and laryngitis, allergic rhinitis, eczema, emphysema and cor pulmonale, and tracheobronchitis. Several patients had stomach ulcers.

Various drugs had been tried, without success; and since the disease generally was of the more severe kind, any new drugs used were rather rigidly tested for efficacy and safety. Skin testing and desensitization procedures were initiated routinely. For immediate relief and during the period of weeks or longer before results with the vaccine could be hoped for, the hydroxyzine-theophylline-ephedrine tablet was prescribed four times daily and as needed. Patients were given a spray of isoproterenol (Isuprel) to be used as required for ventilation.

Evaluation of results

Physicians treating large numbers of allergic patients are all too familiar with the jitteriness often associated with the administration of bronchodilating drugs. Nausea is also fairly common. In evaluating a drug given to patients with allergic bronchial asthma, it is even more vital than with other patients to gauge the level of tolerance carefully. If the majority of patients respond satisfactorily to the drug at dosage levels which they can tolerate, the experienced clinician judges that a particularly useful agent has come to his attention.

In the present series, the combination of hydroxyzine-theophylline-ephedrine (Mar-

ax) undoubtedly produced better symptomatic relief than that obtained with combination including a barbiturate in place of hydroxyzine. Hydroxyzine appears to induce a "psychic" sedation, in contrast to the physiologically sedative action of barbiturates. In view of the generally disappointing results with antihistaminics in the treatment of asthma, one hesitates to assign a role of importance to the antihistaminic action of hydroxyzine in relieving symptoms. Perhaps its superiority is due chiefly to its ataractic action.

Several patients in the series responded with extreme "nervousness" to the ephedrine component. Occasionally, where this was true, supplemental doses of hydroxyzine alone served admirably to curb these effects; in a few instances it was thought best to discontinue the combination drug.

Doses were gradually individualized to satisfy personal requirements. Patients with severe long-standing asthma become excellent judges of the effectiveness of prescribed compounds. They quickly learn the dosage and rarely need to be told to diminish it as the medication begins to provide relief. The "hard core" asthmatics in this series gained the vasoconstricting, bronchodilating effects of ephedrine and the bronchospasmolytic action of theophylline as they had always been able to do.

The apparent capacity of hydroxyzine to provide interdigitating effects to reinforce the foregoing benefits, or to minimize possible side effects, made the medication particularly effective and acceptable. Most of the patients found themselves able to sleep comfortably and breathe easily. Wheezing was appreciably relieved. Generally, patients were calm but alert, and able to carry out their daily activities.

Summary

This review of current concepts and recent advances in the drug therapy of bronchial asthma has touched upon the need for careful diagnosis, and some of the difficulties encountered therein. Once the diagnosis has been established, the physician must undertake to remove or immunize against causative allergens. While awaiting results,

he must use chemotherapy for control of symptoms, and then as prophylaxis against recurrent attacks.

The role of the corticosteroids, sympathomimetic amines, antihistaminics, expectorants, enzymes, antibiotics, and ataractics has been reviewed. It is recommended that allergists and general practitioners maintain flexible views toward new anti-asthmatic drugs. Favorable clinical results with a recently introduced combination of ephedrine-theophylline-hydroxyzine (M a r a x) has been reported as a forward step in the management of asthma. The superiority of this compound seems to lie in its inclusion of hydroxyzine in place of the conventional barbiturate component.

The pharmacologic approach to bronchial asthma as a result of more effective single and combination agents, continues to be a major component of the comprehensive management of these patients. Palliation of symptoms and prophylaxis against further exacerbations continue to be the mission assigned collectively to drugs in the treatment of this disease.

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Many of us have had experience of government planning, in the field of health and in other areas, and there is little evidence that because a thing is done by a monopolistic government agency it is done better, more speedily, more efficiently, more thoroughly and more humanely. Many believe that, governed by those Laws so admirably elucidated by Professor Parkinson, central government monopoly more usually makes for tardiness, bumbledom, inefficiency and inhumanity, and many doctors are now in Canada because personal experience has reinforced these beliefs to the point of emigration.—Emson, H. E.: Basic Issues in Hospital and Medical Care Insurance, *Canad. M. A. J.* 85: 799 (Sept. 30) 1961.

Parathyroid Crisis Successfully Treated by Surgery

Report of a Case

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The clinical features of chronic hyperparathyroidism have become well known, and this diagnosis is being made much more frequently than in the past. Perhaps less well known and less easily recognized are the features of acute hyperparathyroidism, or parathyroid crisis. The literature has been reviewed recently by James and Richards¹, by Thomas and others², and by Hewson³, who described the usual clinical and laboratory findings in this condition. A survey of the literature reveals that approximately 25 cases have been reported, 9 with survival⁴⁻¹¹. The following case represents a patient with some unusual clinical features in whom prompt parathyroidectomy was beneficial.

Case Report

A 61 year old white male carpenter was admitted on April 6, 1959, in a semi-coma. According to his family, he had been in good health until the previous winter, when anorexia developed without other gastrointestinal complaints. About three weeks before admission he fell while repairing a fence, and thereafter was observed to stagger frequently and fall forward. His physician discovered hypertension, for which an unidentified drug was given for three or four days, but was discontinued because of vomiting. Ataxia, confusion, disorientation, and carphologia developed during the next three weeks and led to his referral to this hospital.

The physical examination revealed a well developed, moderately well nourished, resistive, stuporous man who responded to painful stimuli. The blood pressure was 170 systolic, 90 diastolic, pulse 80, respirations 18, and rectal temperature 99.6 F. The skin was warm and dry but pliable. Drifting eye movements were noted, but nystagmus was not detected. The pupils were round, reg-

ular and equal, and reacted sluggishly to light. The optic discs were flat. The pharynx was erythematous without exudate. The heart was not enlarged and a grade 2 systolic murmur was heard in the fourth intercostal space 3 cm. to the left of the sternum. The right costovertebral area was questionably tender, but otherwise the abdomen was normal. The peripheral pulses were good, and no edema was present. The tendon reflexes were hyperactive and equal in the upper extremities and less active but equal in the lower extremities. Muscle weakness was not present.

The original urinalysis yielded the following values: specific gravity, 1.011; pH, 6.0; protein 1 plus; no sugar, and innumerable white blood cells. A subsequent Bence-Jones protein test was negative. The hemoglobin was 11.2 Gm., and the white blood cell count 8,000, with 61 per cent polymorphonuclears, 1 band cell, 3 eosinophils, 3 lymphocytes, 4 monocytes, and 1 basophil. The blood urea nitrogen was 30 mg. and the blood sugar 98 mg. per 100 ml. Examination of the cerebrospinal fluid following two lumbar punctures was negative except for a protein level of 72 mg. per 100 ml. on admission and 61 mg. per 100 ml. four days later. The serum calcium was 19.8 mg. per 100 ml., serum phosphorus 3.6 mg., alkaline phosphatase 6.2 Bodansky units, albumin 3.6 Gm., globulin 3.7 Gm., and bromide 95 mg. per 100 ml. Subsequent blood electrolyte and urine calcium determinations are recorded in table 1.

On the seventh hospital day the electrocardiogram showed a QT interval of 0.32 seconds at a rate of 72 per minute, with widening of the QRS to 0.12 seconds. It was otherwise normal.

A radiographic bone survey was negative except for a slight, diffuse osteoporosis. The bone marrow was normal. The serum electrophoretic pattern showed slight elevation of the gamma globulin. Liver function stu-

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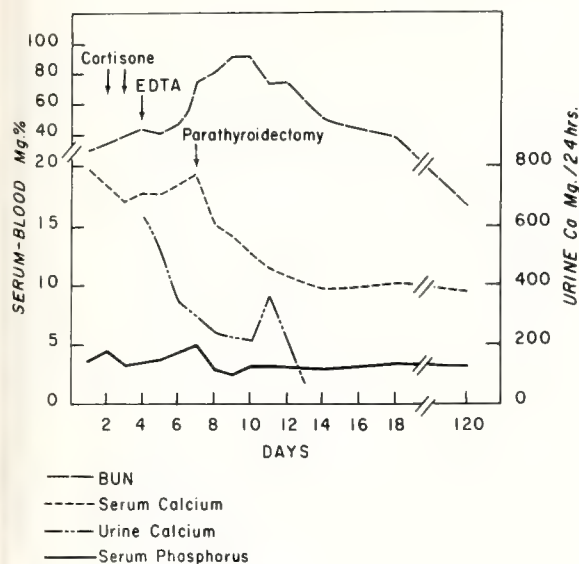


Figure 1

dies and a serum acid phosphatase determination were normal.

The patient was fed a liquid diet of 1200 calories via a nasogastric tube, with supplemental intravenous injections of fluids to maintain an intake of 3600 to 4000 cc. per day and a urinary output of 2400 to 3000 cc. per day. Because of its known hypocalcemic effect, hydrocortisone was given a brief trial of two 50-mg. doses injected intramuscularly, but was discontinued because of a purulent nasopharyngitis. Ethylene-diamine-tetraacetic acid (EDTA) was also used as a hypocalcemic agent, but was discontinued after one intravenous injection of 2.5 Gm. because of a rising blood urea nitrogen level.

Because the patient's course was suggestive of parathyroid crisis and other causes of hypercalcemia had been excluded, surgical exploration of the parathyroids was carried out on the seventh hospital day. The enlarged right and left superior parathyroid glands were excised and a biopsy of the slightly enlarged left inferior gland was taken. The right inferior gland appeared normal and was left undisturbed. The pathologist reported primary clear-cell hyperplasia of each gland; one weighed 8.6 Gm. and the other 5.6 Gm.

The patient's immediate postoperative course was uneventful, and by the third

postoperative day he was much more alert, although still aphasic. By the fifth day he was fully conscious and talking, and on the seventh the serum and urine calcium levels were normal. The patient was followed after discharge and was found to be doing well. Six weeks postoperatively the blood urea nitrogen was 17 mg. per 100 ml., and the urine was normal. When he was last seen 18 months postoperatively, the serum calcium was 10.5 mg. and the serum phosphorus 3.3 per 100 ml.

Comment

Hypercalcemia was first suspected when blood clotted in a collection bottle containing EDTA, which exerts an anticoagulant effect by chelating ionized calcium. Clotting of the sample indicated calcium in excess of the binding capacity present. This was substantiated by a serum calcium level of 19.3 mg. per 100 ml. Such causes of hypercalcemia as multiple myeloma, metastatic malignancy, and sarcoidosis were considered to be excluded by the laboratory and x-ray studies, and there was no history of excess vitamin D or milk-alkali ingestion. Hydrocortisone was given in an effort to lower the serum calcium, since it has been found to reduce hypercalcemia caused by conditions other than hyperparathyroidism¹². This small dose can hardly be considered a therapeutic trial, however. The EDTA also was given in too small an amount and for too short a time to assess its value in reducing hypercalcemia in this condition. The maintenance of hydration and electrolyte balance permitted careful evaluation of the problem prior to operation.

The course generally described for this condition is one of weakness, anorexia, nausea, vomiting, polyuria, lethargy, coma, and rising blood urea nitrogen. The patient's early complaint of ataxia is distinctly unusual, and the progressive depression of the sensorium was much more prominent than were other symptoms. Muscle weakness and hypoactive reflexes were never demonstrated.

The factors responsible for the development of a hypercalcemic crisis in a patient with apparently chronic hyperparathyroid-

ism are not clear. Changes which cause a sudden additional rise in serum calcium such as a milk-alkali diet or demineralization of the bones after immobilization have been suggested, but neither was a factor in this patient. It is more likely that the serum calcium rose gradually to a threshold at which symptoms rather suddenly appeared.

Conclusion

This case emphasizes the urgency and therapeutic effectiveness of parathyroidectomy in parathyroid crisis, and further that hypercalcemic crisis should be considered in any comatose patient when the more obvious conditions have been excluded.

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A Study of Geophagia in a Group of Negro Obstetric Patients

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CHAPEL HILL

From earliest time the perverted appetites of pregnant women have furnished fascinating matter for conversation, an interest that has extended into scientific investigation (see Cooper's excellent review of pica¹). Studies² have indicated that geophagia, the craving for clay, is rather widespread during the pregnancies of Negro women living in southern states. There has been much speculation as to whether this craving represents the body's efforts to supply a missing essential nutrient. Various reasons given by individuals for the consumption of clay are: "She was marked by her mother, as she ate clay"; "Pregnancy causes the craving"; and "It reduces swelling in my ankles." Undoubtedly superstition and habit play an important role.

One wonder, however, if the ingestion of clay has any significant effect upon the phy-

siologic status of the individual who eats it. This study was designed to gain further information regarding geophagia, and in particular to compare the incidence of obstetric complications in women who do and in those who do not eat clay during pregnancy.

Material and Methods

For a period of seven months all Negro patients admitted to the obstetric service at North Carolina Memorial Hospital were interviewed *post partum*, with the object of determining the effect of clay-eating on the mother and baby, and what complications, if any, developed during pregnancy. During the interview the patients were questioned as to their dietary pattern, particular food preferences during pregnancy, and the basis for these preferences.

A total of 214 Negro women were interviewed. Of this group, 12 per cent were single, 4 per cent were separated, and the rest were living with their husbands. Ages ranged from 14 to 50 years, for an average

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of 23 years. With regard to child-bearing, the population ranged from primiparas to one patient having 13 children. Most of the subjects were housewives, with part-time domestic work as the next most frequent occupation. Twenty-eight per cent had completed high school; the average number of years in school was 8.5. About half the women had some source of home-produced foods such as a garden, chickens, pigs, or cows.

Samples of clay were analyzed for the iron content. The clay was dried to a constant weight, powdered, and allowed to stand overnight in a 10 per cent solution of hydrochloric acid. It was then filtered and tested. The analysis indicated that baked red and white clay contained from 115 to 119 mg. of iron per gram. The iron content was high, but varied considerably from one part of the sample to another. This is more drastic treatment than the clay would meet in the digestive tract, but it gives some idea of the possibilities for absorption.

Results

Of the total number of patients interviewed, 25 per cent ate clay, 20 per cent ate starch, and 2 per cent ate both, making a total of 47 per cent.

A typical day's intake, when tabulated according to the four basic food groups, revealed fairly adequate diets for those who ate non-food substances and those who did not. The average score was 65 per cent, with a range of 20 to 85 per cent for the entire group. A link between geophagia and a possible deficiency of iron in the diet was sought, but there was no significant difference in the diet ratings of those who ate clay or starch and those who did not. Correlation coefficients were calculated between educational levels and dietary intake, and between hematocrit levels and dietary intake, to determine if either of these factors played a role. Apparently neither one did, as there was so significant degree of correlation.

In reviewing the dietary habits of this group, it was found that more than half of the subjects showed particular food preferences during pregnancy other than clay or

starch. These covered an extremely wide range of foods, such as pigs' feet, as opposed to the usual preference of fruits, vegetables, meats, and desserts.

The educational level of the patient was considered as a possible factor. However, there was no significant difference in years of schooling between those who ate non-food substances and those who did not.

The average hematocrit of those who ate non-food substances was 33.8 mg. per 100 ml. (plus or minus 0.45) and for others 34.8 (plus or minus 0.43). More than half the sample had received iron tablets during the course of pregnancy. Apparently the women who ate clay did not show a resultant increase in hematocrit, nor was the level lower than in those who did not eat clay. Other laboratory data such as blood pressure, blood serum determination of sodium and potassium, and routine urinalyses showed no differences between the two groups.

Neither were there significant differences between the eaters and non-eaters of clay and starch with respect to the complications of pregnancy and labor. The average infant birth weights were virtually identical. One interesting but non-scientific observation was that those who ate clay had more boys, and those who ate starch had more girls.

Geophagia

All the women interviewed admitted knowing about the practice of eating clay and starch, having learned about it primarily from their mothers, relative, or friends. Those who did not eat clay or starch said they had relatives who did. Approximately half of the group who engaged in the practice began it in the first trimester of pregnancy. Few of the group had eaten these substances before their first pregnancies, and the majority discontinued doing so after delivery, although a few continued to eat smaller quantities of the substances between pregnancies.

Red clay was preferred, but if this was not available, white or yellow clay was ingested. It was usually obtained near a road bank or in the back yard. Distances traveled to obtain it ranged from a few feet to over

20 miles. The women usually obtained the clay, but on occasion sent their children or husbands for it. A few bought clay, but never traded for it.

Most of the subjects baked the clay, saying that baking improves the flavor, and a few said that it kills the germs. Several ate it raw. The best time to eat raw clay was said to be after a rain storm, when the flavor was alleged to be particularly good. It was difficult to obtain descriptions of the taste: some said sour, others sweet. Most of the respondents said that there really was no taste. The substances most often mentioned as being comparable were starch or flour.

The amount of clay or cornstarch consumed during pregnancy varied from small amounts eaten two or three times during the pregnancy to 2 to 3 cups of clay or one box of starch daily. Some subjects said they ate the substances between meals; others followed no special pattern.

Ingestion of clay or starch did not seem to produce any unpleasant effects. Some said they became constipated and discontinued the practice for a while. A few reported that the substances settled their stomachs and reduced nausea or vomiting during the early weeks of pregnancy.

Most of the patients said that their doctors did not know about the practice. The doctors had not asked about it, and the women had not volunteered the information for fear of being told to stop. Some of the respondents began eating starch when told not to eat clay. Many had discontinued the practice because their husbands disapproved of it. All the husbands knew of the clay-eating, even though they may have disapproved of it.

On the basis of careful questioning, Ferguson and Keaton^{2a} concluded that the individuals they studied ate clay and cornstarch simply because they like it. This was also the most prevalent reply obtained in this study. On being asked, most of the women said: "I don't know," "Just a habit," or "I crave it." It is interesting to note that this group did recommend the practice to other pregnant women. They reasoned that they themselves had suffered no ill effect,

and if a woman craved clay, the craving should be satisfied lest she eat something worse.

Comment

The cultural, sociologic, and psychologic aspects of the practice of eating clay serve to obscure its origin. Conceivably, the custom may be a carry-over from the distant past, when clay may have been eaten to satisfy hunger. Although it is not considered a food today, it may have been a part of the cultural food pattern of primitive man. Food preferences can also be learned from one's elders.

Other aspects of the subject bear investigation. Clay is known to have ion-exchange properties. If ingested in excessive quantities, it might produce a sodium and potassium imbalance. In the present study, however, the sodium and potassium blood serum levels were within normal range in both groups of subjects.

Since clay is high in iron, one might consider this habit to be due to a deficiency of iron in the diet; however, this study did not indicate such a deficiency in the diets of the women questioned. Moreover, the hematocrit levels of the entire group were within normal range, even though approximately one fourth of the subjects had been eating clay. The study also failed to confirm the hypothesis that education is a factor in the practice, since the years of schooling in the two groups were similar.

Summary

Of 214 Negro women admitted to the obstetric service of North Carolina Memorial Hospital during a seven-month period, 47 per cent admitted to the practice of eating clay, cornstarch, or both, during pregnancy.

According to the results of this study, there were no overt complications during pregnancy or labor attributable to this practice. The babies also were in good health.

Since the practice will probably prevail for years to come, obstetricians and other physicians should be aware of it.

Acknowledgement

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versity of North Carolina School of Medicine for their assistance and encouragement during this study; Dr. H. Bradley Wells, University of North Carolina School of Public Health for the statis-

tical analysis, and Mrs. Faye Martin, University of North Carolina School of Nursing who assisted with the interviews.

A Private Practitioner Looks at the Public Health Service

HUGH A. MATTHEWS, M.D.

CANTON

I am an excellent person to tell the Public Health Director exactly what he and the Public Health Service should do. My work experience is twofold: farming, at which I was absolutely no good, and family medical practice, at which I am just a little better than at farming. If I were an excellent physician in general practice and public health service, I would then know I did not have the whole answer.

I share the opinion of an inmate at a psychiatric institution. A farmer delivering vegetables to the institution asked the inmate, "Have you ever been a farmer?" The inmate replied, "Have you ever been a schizophrenic in a bug house?" When the farmer replied, "Nope," the inmate replied, "Better try it; beats farming."

Being awakened at two in the morning by a socialite who wants a shot for hot flashes is not pleasant; but it's better than getting hit on the ankle by a root thrust out by a spring-tooth harrow in a tract of new ground.

I will never go back to farming. Neither will I likely be invited to become a Public Health Director after these admissions. If I were so invited, I likely could not get out of North Carolina's beautiful mountains because of entanglement in human problems of choking, smothering, low-back pain, and hot flashes.

If I were to become associated with Pub-

lic Health Service, I would do some straight thinking before accepting a post. I would indelibly impress upon my mind a few undisputable and perhaps self-evident facts.

First, all practicing physicians are no more alike than are all public health directors. Some are hostile, some helpful. Some are sanctimonious, some sacrificial. All are intelligent and therefore capable of communication.

Second, all communities have devoted members and disciplines. These people know the problems and peculiarities, prejudices and prides, of their community better than does the incoming physician. They are eager to help and to be helped.

Third, the best and the worst communities have their healthy and unhealthy aspects. All communities have common problems, but each has its distinctive problems. Communities, like each person in them, wish to be understood and appreciated. Rapport is as important in dealing with a community as with an individual patient. In either case, new concepts cannot be imparted. They have to grow out of previous experiences.

With these concepts in mind, I would enter a community determined not to start treatment on the community-patient until an adequate history and physical examination had been completed. For the history I would go to the practicing physicians, ministers, school officials, extension service personnel—certainly the county commissioners and municipal authorities—and all para-

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medical resources. I would use, but not accept as all inclusive, the history of the previous public health physician in the area.

While taking the history, I would do the general physical examination. This would disclose what laboratory aids and specialist consultations were needed for the treatment of my patient—the community. If surveys (the x-ray of the community) were needed, I would make them or go all out to get them done. If consultant services were needed, I would bombard, if need be, state and federal public health agencies for the consultants.

As a Public Health Director, I would conceive of my role as a director and act within this conception. I would stay out of services that were being performed adequately for my patient. I would direct all community resources to do for my patient what they could do well. I would be willing to do for my patient that which was not being done

or could not be done by other resources. My major objective then, year by year, would be to perfect a team approach to public health problems.

Last, I would not rest at ease on my original history and physical. I would always keep in mind that good public health, like good personal health, is a process, not a state.

Conclusion

I have reviewed what I would do prior to going into Public Health Service and what I would do after becoming a public health director. You ask, "What would you do when your high ideals bogged down in cold realities?" I would go into real estate business and make the money that the community thinks the general practitioner makes.

Retrospective Study of Diabetes Mellitus

CHARLES W. STYRON, M.D.

RALEIGH

In March, 1958, Dr. A. C. Bulla, Health Director of the Wake County Health Department, suggested that a study of diabetes mellitus in Wake County be made in cooperation with the State Board of Health and the U. S. Public Health Service. Initially consideration was given to the possibility of studying a few patients on specific diets—(1) a high protein diet, and (2) very low protein diets (such as the rice diet)—with simultaneous measurement of associated pituitary and adrenal activity. Such a study was suggested on the theory that high protein diets stimulate and low protein diets depress the activity of these glands.

After some discussion a committee was formed consisting of Drs. D. F. Milam, William Peck, A. C. Bulla, Isa C. Grant, Miss Flora Wakefield, and others. This committee first met in March, 1958, and elected to conduct a diabetes detection study on a

group of patients over 65 years of age in Wake County. The purpose of the survey was to determine the prevalence of diabetes in this particular age group. Participating groups were the Diabetes Committee, Wake County Medical Society; the Chronic Disease Section, North Carolina State Board of Health; the North Carolina State Laboratory of Hygiene; the Wake County Health Department, and the Wake County Tuberculosis Association.

Prior to the survey all physicians practicing in Wake County were notified of the projected study. Later they were sent reports of abnormal blood sugar levels or glycosuria.

Material and Methods

A list of Wake County residents 65 years of age or older was made available to the Wake County Health Department. Public health nurses visited these persons, obtained their permission and cooperation for the study, and made second visits. Blood and

urine sugar levels were obtained two hours following a meal high in carbohydrates. Whenever possible, tests were made at the Wake County Health Department, at which time roentgenograms of the chest were also made.

Results

Six hundred thirty-three persons were visited; 81 refused to be tested, and the nurse was unable to get blood specimens from 16. Thirty-four had been previously diagnosed as having diabetes, some of whom were under treatment and others not. Specimens were obtained from 23 of these. Thirty-one of the persons examined were under 65 years of age. These 31 asked to be included in the tests.

Five hundred and one of the patients were tested, none of whom were known to have diabetes mellitus, and 476 of whom were over 65 years of age. Twenty of these (4 per cent) were found to have the disease; 19 probably had it, and in a random study of 524 patients, 23 were known to be diabetic, making a grand total of 62 patients with diabetes—a high figure indeed. If the 11 untested known diabetics are added to this group of those interviewed but not tested, the percentage is even higher.

On the basis of these studies and as a result of the interest engendered by our com-

mittee meetings, it was decided to continue the study in a group of diabetic patients who were known, catalogued, and followed over a period of years. These patients or their records were available in my private practice. In 1959 they numbered almost one thousand, and now almost 1,200. Histories had been taken with special reference to the disease under study—for example, birth and maximum weights, cardinal symptoms, symptoms associated with uncontrolled disease, and degenerative disease. We are now in the process of consolidating these data, including such additional information as the severity of diabetes, status of control, and major complications. In addition, we have made contact with as many of the patients as possible by personal interview, letter, or telephone. We have secured such data as occupation, educational background, marriage, and pregnancies.

When our facts are complete, we hope to analyze the information with the aid of the Univac. We know already, for example, that none of our patients who had the benefit of early diagnosis and treatment have major neuropathy, and that the triopathies of diabetes have been limited. The reverse is true of those who have gone a long time without treatment. Observations and conclusions based on the data we have compiled will be the subject of a subsequent report.

Lewis Carroll surely foresaw the jet age when he had the Red Queen breathless from running to keep in the same place. In stagecoach days a V. I. P. who missed the coach would wait philosophically for the two or three days to elapse until another coach was proceeding to his desired destination. Nowadays his counterpart cannot afford to accept with equanimity the missed section of a revolving door; fortunately electronics is rapidly removing this delay from his path.—From the *Obsolescence of Leisure*, by Elinor F. E. Black, in the *Canadian Medical Journal* 85: 941, October 21, 1961.

Report on the Actions of the House of Delegates American Medical Association

FIFTEENTH CLINICAL MEETING

NOVEMBER 26-30, 1961

DENVER, COLORADO

Social Security health care, relations with the American College of Surgeons, organization of the American Medical Political Action Committee, medical discipline, and polio vaccine were among the major subjects acted upon by the House of Delegates at the American Medical Association's Fifteenth Clinical Meeting held November 26-30 in Denver.

Sounding the keynote for the Association's campaign to oppose enactment of the King-Anderson type of legislation in 1962, Dr. Leonard W. Larson of Bismarck, North Dakota, A.M.A. president, told the opening session of the House that proposals to incorporate health care benefits into the Social Security system "would certainly represent the first major, irreversible step toward the complete socialization of medical care."

The House of Delegates gave enthusiastic approval to Dr. Larson's address and took several actions reaffirming strong support for the Kerr-Mills program to aid the needy and near-needy aged, and urging a concerted, determined fight against Social Security health care proposals in Congress.

The House advised all state and county medical societies to recognize the impending threat and to prepare now for any eventuality by continuing to oppose any scheme which tries to impose a substandard system of medical care on the American people.

"United, as well as individual, effort is essential," the House declared. "To stop short of our total effort is to invite disaster and to let loose upon our beloved American irreversible forces which will ultimately destroy her. We cannot and we must not fail."

American College of Surgeons

The House agreed with the intent of five resolutions which expressed strong dissatisfaction over recent statements by a spokes-

man for the American College of Surgeons, and it also approved a Board of Trustees report informing the House that arrangements have been made for a January meeting with the A.C.S. Board of Regents to discuss that organization's recent statements and policy positions. The report expressed hope that the meeting "will lead to a unification of effort in behalf of American medicine."

The House instructed the Board of Trustees to take the five resolutions to the January meeting and to report to the delegates as soon as possible on the results of the meeting. In taking the action, the House approved a reference committee report which said:

Your reference committee believes the public airing of disagreements between large segments of medicine can only confuse and shake the confidence of the public in the medical profession and distort the true image of medicine which the American people should have.

However, in its hearings upon the several resolutions relating to the recent statements of the American College of Surgeons, all those who testified were in opposition to the actions and statements of the ACS. The majority of those who spoke were Fellows of the American College of Surgeons.

Your reference committee has no wish to fan the flames of controversy ignited by the statements of the American College of Surgeons. On the other hand, the committee feels the House has an obligation to its membership—which includes physicians in all types of practice—to agree with the indignation manifested by the introduction of these resolutions and in the discussions before the committee.

This is all the more important because the position of the American College of Surgeons is based on an incorrect interpretation of the action of this House which in no sense is a retreat from its position of firm opposition to fee splitting.

American Medical Political Action Committee

The House heartily approved the purposes and goals of the recently-organized American Medical Political Action Commit-

tee and urged all physicians, their wives and interested friends to join this and other political action committees in their states and communities.

"Effective political action must be carried on at the local level and effective implementation must be done by local groups of physicians," the House said. "The formation of AMPAC recognizes the need for a national medical political action committee to coordinate the political activities of physician groups at all levels throughout the country."

The purposes of AMPAC, which is an organization separate and distinct from the American Medical Association as required by federal law, are:

1. To promote and strive for the improvement of government by encouraging and stimulating physicians and others to take a more active and effective part in governmental affairs.

2. To encourage physicians and others to understand the nature and actions of their government as to important political issues and as to the records and positions of political parties, officeholders and candidates for elective office.

3. To assist physicians and others in organizing themselves for more effective political action and for carrying out their civic responsibilities.

4. To do any and all things necessary or desirable for the attainment of the purposes stated above.

Medical Discipline

The House received from the Council on Constitution and Bylaws a proposed amendment which would have made it possible to implement a recommendation by the Medical Disciplinary Committee that was approved by the House at the June, 1961, meeting. This recommendation was to change the bylaws so as to confer original jurisdiction on the Association to suspend and/or revoke the A.M.A. membership of a physician found guilty of violating the Principles of Medical Ethics or the ethical policies of the Association, regardless of whether or not action has been taken against him at the local level. However, after considerable discussion on the floor of the House, the proposed amendment was

referred back to the Council on Constitution and Bylaws.

In another action on medical discipline the House approved the expanded activities of the Judicial Council, which has taken over permanent responsibility in that area, and said that the Council program should benefit all physicians, the public, and the profession.

Polio Vaccine

The House adopted a resolution which urged that medical societies at the local, county, district or state levels throughout the United States should encourage, stimulate, and participate in surveys to determine the percentage of individuals in each community who have undergone immunizing procedures for poliomyelitis.

The resolution stated that on the basis of the results of the surveys, the local medical society should determine the type of vaccine and the most effective type of program which will be of greatest benefit to the public.

Until such time as all three types of oral vaccine are available, the resolution concluded, the Salk vaccine should be the vaccine of choice for routine poliomyelitis immunization, with the choice of program for administering the vaccine to be determined on a local basis by each county medical society.

Miscellaneous Actions

In considering a wide variety of resolutions and annual and supplementary reports, the House also:

Disapproved of two proposals which would have required that *resolutions* be introduced 30 and 45 days, respectively, before Association meetings.

Approved a statement that physicians have an *ethical obligation* to participate in medical society activities and express their opinions fully and freely.

Reaffirmed A.M.A. policy that it is not considered unethical for a physician to own or operate a *pharmacy* provided there is no exploitation of the patient.

Agreed with the Judicial Council that the physician himself is responsible for the con-

trol and custody of *drug samples* once they come into his possession, and in the high tradition of the medical profession he should not dispose of them in any way that could cause harm to others.

Commended those constituent medical societies which have moved forward in the area of *human relations* by eliminating membership restrictions based on race or color. In connection with the same subject, Dr. Peter Murray of New York City, retiring after 12 years of service in the House, told the delegates in a farewell address that Negro physicians now have some kind of medical society membership in every state except one.

Approved a recommendation that a special House committee be appointed to investigate all facets of the operation of the *Joint Commission on Accreditation of Hospitals*.

Agreed with the Board's choice of Miami Beach, Florida, as the site for the *1964 Clinical Meeting*.

Approved the combining of the *American Medical Education Foundation* and the *American Medical Research Foundation* into the *American Medical Association Education and Research Foundation*, effective next January 1.

Deferred action on a proposed study of *fund raising* by voluntary health agencies, pending the development of additional information by the A.M.A. Committee on Voluntary Health Agencies.

Reaffirmed the previous policy that physicians should have the privilege of prescribing drugs by either *generic or brand name*.

Approved the principle of *income tax deductions* for medical care of the aged.

Recommended, in reviewing the *Medicare Program*, that all county medical societies in the area surrounding armed forces hospitals make a serious attempt to establish formal liaison with the physicians on those hospitals staffs.

Endorsed the administration of indigent medical care programs developed in cooperation with local medical organizations as a legitimate activity of *state and local health departments*.

Urged the elimination of all "categories" in programs of *assistance to the needy* at the federal and state level, with all assistance provided through a single program.

Referred to the Council on Medical Service a resolution proposing the use of state and federal tax funds to provide voluntary prepayment health insurance protection for the aged. In a related action the House approved of experimentation with *prepayment plans* under assistance programs.

Urged more vigorous promotion of voluntary non-profit prepayment health plans.

Urged every physician in the United States to use automobile *seat belts*.

Recommended, as a civil defense measure, a *mass immunization* program for the general public.

Suggested that the Board of Trustees continue its negotiations to develop a group *disability insurance* program for A.M.A. members.

Concurred in the Board's appointment of a special committee to study the organizational status of *A.M.A. Sections*, the functions of the Scientific Assembly and existing procedures for establishing medical certifying boards.

Instructed the Council on Medical Education and Hospitals to study the present and potential contribution of the *American Board of Abdominal Surgery* to the advancement of the art and science of surgery and the betterment of public health, to determine whether it should be approved as a recognized examining board.

Approved and commended the objectives and program submitted by the Committee for Liaison with *National Nursing Organizations*.

Recommended that the Secretary of Defense consider the advisability of developing a training program for *reserve medical officers*.

Awards and Donations

The A.M.A. Board of Trustees presented a special citation to the producers and cast of The Donna Reed Show for its "contribution to public understanding of the high ideals of the medical profession." Carl Betz, who portrays Dr. Alex Stone on the tele-

vision show, received the award from Dr. Hugh H. Hussey Jr., A.M.A. Board chairman, at the Wednesday session of the House.

Contributions totaling \$435,275.93 from physicians in six states were presented to the American Medical Education Foundation during the opening session on Monday.

Registration

Final registration at the meeting reached a total of 6,138, including 2,976 physicians.

F. J. L. BLASINGAME, M.D.
Executive Vice President
American Medical Association

Report from The Duke University Poison Control Center

JAY M. ARENA, M.D.

DIRECTOR

VITAMIN D

When unusual symptoms develop in a patient receiving vitamin D, toxic hypervitaminosis D should be suspected. Usually the intoxication develops only after amounts of the vitamin in excess of 100,000 I.U. have been taken daily for several months, but lower doses may be toxic. If the vitamin intake is not limited, the condition can be fatal.

Indications of poisoning include nausea and vomiting, diarrhea, fatigue, weight loss, headache, paresthesias, depression, normocytic normochromic anemia, urinary frequency, nocturia, albuminuria, hematuria, progressive loss in urinary concentrating power, rise in nonprotein nitrogen, elevated serum calcium and phosphorus levels, with normal alkaline phosphatase, and roentgen signs of diffuse demineralization of bones or periarticular calcification. These symptoms and signs can appear in any order or combination.

Although many of these conditions also occur with primary hyperparathyroidism, the serum phosphorus and alkaline phosphatase levels in hypervitaminosis D are

normal or but slightly elevated, whereas in the endocrine disorder the serum phosphorus is usually low in association with pronounced elevation of the alkaline phosphatase.

Hypervitaminosis D should be prevented, but once it has developed, it must not be overlooked. If the vitamin is discontinued, renal failure and irritation will usually disappear and the metastatic calcification in the kidneys and soft tissue will generally be reabsorbed.

VITAMIN K

The indiscriminate administration of vitamin K and its analogues is made on the assumption that they are harmless, and the physician often believes that he is doing something of real value for his patient by giving him such a preparation during a hemorrhagic episode, regardless of etiology. Even in the face of predetermined hypoprothrombinemia, it is the common practice to give vitamin K in greater than adequate doses and to continue the treatment well beyond the time required to correct a true deficiency.

Hypoprothrombinemia due to a seriously diseased liver cannot be corrected by vitamin K therapy, and many patients with this disorder can actually be harmed by frantic administration of these compounds. Hypervitaminosis K in animals has produced aplastic anemia, petechial hemorrhages, renal tubular degeneration and focal hemorrhages in many organs. Premature infants given large doses of the water soluble analogue of vitamin K have developed hemolytic anemia and kernicterus. Adults with liver diseases have had depression of prothrombin activity after large doses of vitamin K and other alterations in liver function have been detected in individuals with previously normal liver function.

It should be emphasized therefore, that vitamin K and its analogues should be prescribed only for hemorrhagic conditions due to hypoprothrombinemia, except in advanced liver disease, and that therapy be given in therapeutic doses for no more than is necessary to restore prothrombin activity to normal.

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JANUARY, 1962

DR. LARSON'S CALL TO ARMS

This journal is breaking a long-standing precedent by publishing in this issue Dr. Leonard Larson's address to the Denver meeting of the House of Delegates of the A.M.A., even though it has appeared in the *Journal of the American Medical Association*. The reason for breaking the precedent is that the address made such an impression on the House of Delegates that it passed a resolution urging that it be published in state medical journals as well as in the *J.A.M.A.*

Doubtless many of our readers will have read Dr. Larson's address, but it is hoped that those who have not will read it in this issue. It is hard to think of a more convincing argument in favor of the Kerr-Mills Act and against the King-Anderson Bill.

THE FIFTEENTH CLINICAL SESSION OF THE A.M.A.

In another part of this issue, a summary of the actions of the House of Delegates of the American Medical Association at the Denver meeting is published. Since President Larson's address is printed in full, most of the quotations from it are omitted.

The action that will probably be most widely discussed was the approval of the American Medical Political Action Committee. Its purposes are outlined in the report of the delegates.

Of particular interest was a statement made by Dr. Peter Murray of New York City, who was the first Negro delegate to the A.M.A. In a farewell address after twelve years of service, he stated that Negro physicians now have some kind of society membership in every state except one.

The entire report will be of interest to all members who are interested in the parent organization of American medicine.

* * *

A SENIOR CITIZENS POLITICAL ACTION COMMITTEE

The November issue of *Aging*, a publication of the Department of Health, Education, and Welfare, states that "In September, Congressman Aime J. Forand announced the formation of the National Council of Senior Citizens for Health Care through Social Security. Membership of affiliated groups is now over 300,000.

Its objective is passage of the medical care through Social Security program.

The Council will:

- publish an up-to-date Washington newsletter, to be supplemented by periodic bulletins and special reports on health care and related matters;

- use its Washington office as a clearing-house and coordinating center to service affiliated groups and interested individuals;

- gather and pool information and ideas so that senior citizen members will be able to present their views in a more effective manner;

- provide educational and information materials for developing community support and understanding;

- assist in organizing local and State councils of senior citizens.

This senior citizens political action committee has for its executive director Dr. Blue Carstenson, who was formerly assistant to Under Secretary of Health, Education and Welfare, Dr. Ivan J. Nestingen. Since Dr. Carstenson's name is not to be found in the last A.M.A. Directory, he is probably not an M.D.

Doubtless many of our older patients will be asked to enroll in this organization, and some of them will almost certainly ask their physicians about it. The purpose of this editorial is to forewarn our readers, so that they may be forearmed with suitable arguments against the King-Anderson Bill, and in favor of the Kerr-Mills Act.

* * *

BRITISH NATIONAL HEALTH SERVICE

Professor John Jewkes and his wife Sylvia have recently issued a report on the British National Health Service. Since Professor Jewkes was a member of the Royal Commission on the Remuneration of Doctors and Dentists and is Professor of Economic Organization in the University of Oxford, he should be able to speak with authority on the National Health Service. An editorial by Dr. Morris Fishbein in *Medical World News* is quoted in part:

After carefully noting the conditions in England and in the U.S. before and after the beginnings of the National Health Service, the Jewkes' say, "It is difficult to escape the conclusion that in the U.S. the quantity of medical services available is larger and is tending to increase more rapidly than in Britain." In 1939, they point out, Great Britain was more amply supplied with hospital beds than the U.S. But England has built few hospitals since 1947 while, under the Hill-Burton Act, the U.S. has averaged 150 new hospitals each year. And since 1921, the number of American physicians per thousand population has consistently been higher than in Great Britain.

Perhaps the only place in which Britain excels in personnel is with nurses. In relation to population there have always been more in England.

Professor Jewkes is particularly critical of the administration of the National Health Service which, in seeking to impose a "central pattern and purpose" on the medical services as a whole, has built up a complex hierarchical

administrative structure which, in its turn, is now being criticized as productive of delay and confusion.

Most important in this paper, however, is the discussion of the economics of medical services. Medical services in Great Britain continue to be purchased privately, and about one half of all the pharmaceutical products consumed are purchased privately. Voluntary health insurance has grown rapidly in Great Britain because people are ready to make sacrifices in other directions in order to enjoy prompt hospital and specialist treatment, free choice of specialists, and private accommodations.

Finally, the Jewkes' suggest that the National Health Service may have "positively hindered the growth of British medical service."

On this the editor of the **British Medical Journal** comments, "We may or may not agree with this, but at least the remark comes as a challenge to those who boost Britain's National Health Service as if it were one of the most remarkable things that has happened in the twentieth century. The same unctuous self-praise—that the National Health Service is an example to the world—may well be 'the kind of pretentious claim likely to be indulged in by a power which finds its place in the world slipping, does not relish it, and seeks compensation in national day-dreaming.'"

* * *

THE BEST OF ALL POSSIBLE DRUGS*

A bill recently introduced in the Congress would ban the patenting of a new drug unless the manufacturer could prove that it was significantly more effective than all similar drugs now available. This well intended, if somewhat naive proposal is an interesting example of how the plausible can become the mischievous. If the bill passes, Government will somehow determine the relative efficacy of each new drug. Similar criteria, one might suppose, would be applied to cigarets, automobiles, television sets and cocktails. Let us permit only the best pencils, pickles, or penicillin to be sold.

Only an amateur would suppose that drug efficacy can be determined that simply. If a drug is potent, it is also potentially dangerous. At what point does the danger

*Reprinted from the Journal of the Medical Society of New Jersey, September, 1961.

outweigh the benefit? How does the federal agency allow for personal idiosyncrasy of patients? Is a pleasantly flavored vehicle enough to warrant a patent if there is no change in pharmacologic effectiveness? How do you appraise therapeutic efficiency in human beings without trying the drug before it is made available for human use? Do you release it on the basis of animal experiments only? How does a Government tribunal weigh the placebo effect, the suggestive effect, and effect of the practitioner's art on the workings of a new pharmaceutical?

Of course the Federal Government can, by a simple act of Congress, create a Section for the Appraisal of Pharmaceuticals (to be identified by its capital initials), and thus the Voice of Authority will tell us what is good for us. The Voice of Authority once rejected Lister's theory of antiseptics, Jenner's vaccination against small pox, Semmelweis's report on the cause of puerperal fever—not to mention Auenbrugger's discovery of the value of chest percussion. Federal appraisal of drug efficiency offers a road well paved with good intentions—and fraught with the mischief that often comes when amateurs make technical decisions for the professionally trained.

* * *

DR. SAMUEL'S JOHNSON'S NEW YEAR PRAYERS

A small volume edited by Elton Trueblood and published by *Harper's* contains one hundred of Dr. Samuel Johnson's prayers. Eighteen of these are for New Years. From these the following excerpts form a fitting New Year's petition for almost anyone.

"Almighty and everlasting God, . . . I return thee thanks that Thou hast given me life, and that thou hast continued it to this time . . . grant that in affliction I may remember how often I have been succoured, and in Prosperity may know and confess from whose hand the blessing is received . . . Impart to me good resolutions and give me strength and perseverance to perform

them . . . grant that another year my not be lost in Idleness, or squandered in unprofitable employment . . . Let not pleasure seduce me, idleness lull me, or misery depress me . . . Grant me such strength as my duties may require and such diligence as may improve those opportunities of good that shall be offered."

* * *

DR. ROY NORTON HONORED

His many friends were not surprised to learn that at its annual meeting in Detroit (November 13-17) the American Public Health Association made Dr. J. W. Roy Norton president-elect. Dr. Norton's record as our state health officer fully qualifies him for this signal honor. This journal speaks for the doctors of the state in congratulating Dr. Norton on this deserved recognition—and also in congratulating the American Public Health Association on having him for its leader a year hence.

* * *

A CHILD'S CALL FOR COURAGE AND CHEER

The following "Letter to the Editor," published in the *Winston-Salem Journal* for November 15, was written by the 7 year old son of Dr. and Mrs. David Cayer. His parents knew nothing about it until they saw it in the paper. At the bottom of the letter young David drew a picture of small dog (Russia) barking at a much larger one (U.S.A.). When his teacher asked if he had had any help in writing it, David admitted that he had had to ask how to spell Khrushchev.

Dear Editor,

This is what I think about fallout.
I don't think fallout will come here.
We should have more faith in our country.
Khrushchev is just afraid. I enjoy reading your newspaper.

Sincerely,

David Cayer

(Second grade, Summit School)

Russia is like a little dog barking at a big dog.

Many, if not most, adult Americans might well adopt some of this boy's optimism.

Correspondence

Mr. James T. Barnes
Executive Director
Medical Society of the
State of North Carolina
203 Capital Club Building
Raleigh, North Carolina

Dear Mr. Barnes:

The retention of certain servicemen beyond their normal date of expiration of active duty tours is essential in order that the augmentation of the Uniformed Services, called for by the President, can be attained . . .

The extension of tours of duty may result in some dependents being without a valid Identification Card for some time . . .

In the past, the "expiration date" on the ID Card has been the governing factor in determining that eligibility still exists. Since the involuntary extension of the tours of duty of many servicemen is effective almost immediately, the probability exists that some still-eligible dependent wives and children may apply for civilian medical care to which they are still entitled. They may not, however, have in their possession the required proof of their eligibility.

In such cases, the dependent has been instructed to explain the situation to the physician and hospital authorities. They have been advised to present, if available, some tangible evidence such as allotment checks, official orders, directives, or personal letters which state the pertinent facts to the physician or hospital to help support the dependent's claim of continued eligibility.

This office is not empowered to broaden the "good faith" aspect of our contract. The number of dependents temporarily "unidentified" who require medical benefits will not be large.

In view of the situation at hand, I would appreciate your assistance in encouraging physicians and hospitals to exercise patience and understanding during the next several months when their services are requested by dependents of these extendees.

I must emphasize, however, that no

claims may be processed for payment unless the dependent has provided a valid DD Form 1173 or a statement of eligibility as required by our contract and as outlined in ODMC Letter No. 1-60.

. . . We would appreciate it if you could publish a copy of this letter, in the next copy of your Medical Society journal . . .

W. D. GRAHAM

Brigadier General, MC, USA
Executive Director

Bulletin Board

COMING MEETINGS

Conference of County Medical Society Officers and Committee Members—Carolina Hotel, Pinehurst, January 27.

North Carolina Mental Health Association—Jack Tar Hotel, Durham, February 16-17.

Annual Watts Hospital Medical and Surgical Symposium—Watts Hospital and Jack Tar Hotel, Durham, February 23-24.

North Carolina Chapter, American College of Surgeons, Meeting—Sir Walter Hotel, Raleigh, March 23-24.

University of North Carolina Annual Medical Alumni Day—Chapel Hill, March 30.

American College of Radiology, Thirty-eighth Annual Sessions—Roosevelt Hotel, New York, February 7-10.

Michigan Association of the Professions, Third Annual Congress—Michigan State University, East Lansing, Michigan, February 9-10. (For details write: MAP, 120 West Saginaw, East Lansing, Michigan.)

Virginia Academy of General Practice Symposium—Lee-Jackson Hotel, Winchester, Virginia, March 14.

Southeastern Chapter, Society of Nuclear Medicine, Third Annual Meeting—Academy of Medicine, Atlanta, Georgia, March 16-17.

Virginia Chapter, Arthritis and Rheumatism Foundation, Seminar—Hotel Roanoke, Roanoke Virginia, April 14-15.

NEW MEMBERS OF THE STATE SOCIETY

The following physicians joined the Medical Society of the State of North Carolina during the month of November, 1961:

Dr. Dolphin Henry Overton, Jr., 717 Sycamore St., Rocky Mount; Dr. Charles Elliot Morris, 302 Hemlock Drive, Ridgefield Park, Chapel Hill; Dr. Hamilton Witherspoon McKay, Jr., Duke University Med. Center, Durham; Dr. John Milton Pixley, 1001 Wellington Road, Winston-Salem; Dr. James Lee Northington, 516 W. Fourth Street, Siler City; Dr. John Mason Bishop, Jr., 1110 Wake Forest Road, Raleigh; Dr. George Charles Thrasher, Jr., 908 Tate Drive, Raleigh;

Dr. George Herbert Armstrong, Box 518, Mount Gilead; Dr. Donald Perry Douglass, 110 Church Street, High Point; Dr. Earl Wingate Parker, 316 S. Third Avenue, Siler City; Dr. David Franklin Freeman, N. C. Memorial Hospital, Chapel Hill; Dr. Donald Eugene Vaughn, Route 1, Chub Lake Road, Roxboro; Dr. Jane Triplett Carswell, 410 Mountain View Road, Lenoir; Dr. Fred William Payne, Jr., 404 Falls Road, Rocky Mount.

* * *

NEWS NOTES FROM THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE

Two postgraduates courses in medicine are being sponsored by the University of North Carolina School of Medicine in Edenton and Wilson.

The courses consist of two lectures one day a week over a six-week period. The Edenton course, which began Wednesday, January 17, is co-sponsored by the First District Medical Society and the Wilson course, which began Thursday, January 18, is co-sponsored by the Wilson County Medical Society. No meetings will be held during the week of February 22 and 23 due to the annual Watts Symposium.

All Edenton lectures will be given in the Edenton Restaurant at 4:30 p.m. and 7:30 p.m. The Kinston lectures will be given at the Hotel Cherry, also at 4:30 p.m. and 7:30 p.m.

The lecturers for these courses, in order of their appearance are: Dr. Oscar Swineford, Jr., University of Virginia School of Medicine; Dr. Howard H. Steel, Temple University Hospital; Dr. Doris A. Howell, Duke University School of Medicine; Dr. John T. Sessions, Jr., University of North Carolina School of Medicine; Dr. Allan Downie, University of North Carolina School of Medicine; and Dr. Robert W. Kistner, Harvard Medical School.

Both courses are acceptable for credit by the American Academy of General Practice for the number of hours attended by the individual physicians.

* * *

Dr. Erle Peacock, Jr., assistant professor of surgery of the University of North Carolina School of Medicine, is spending two months at the Christian Medical College at Velore, India, where he is working in a leper colony located there.

Dr. Peacock was invited to India by Dr. Paul Brand, deputy director of the school. His trip is sponsored by the U. S. Public Health Service and by the personal support of Dr. Verne Blackwelder of Lenoir.

* * *

Dr. Michael K. Berkut of the School of Medicine has been granted a year's leave of absence in order to work with the U.S. Atomic Energy Commission in Washington.

Dr. Berkut is assistant professor of biochemistry and has been on the UNC faculty since 1947.

Dr. Hans H. Strupp of the Department of Psychiatry recently took part in a symposium at the University of Southern California. He spoke on "The Outcome Problem in Psychotherapy Revisited."

* * *

Dr. William Pollitzer of the Department of Anatomy contributed a paper on "Hemoglobins, Haptoglobins and Transferrins in Man" at the annual meeting of the American Anthropological Association in Philadelphia November 16-19.

Hemoglobins, haptoglobins and transferrins, recently discovered genetic traits, are important in physical anthropology.

* * *

A number of faculty members of the UNC School of Medicine participated in the annual meeting of the N. C. Academy of General Practice held at Pinehurst Monday through Wednesday, November 27-29.

Dr. George D. Penick of the Department of Pathology moderated a panel discussion on "Blood Fractions in Clinical Medicine." Dr. John Graham of the same department took part in the discussion.

Dr. Jeffress G. Palmer of the Department of Medicine spoke on "The Detection of Bleeders."

The Department of Pediatrics was represented by Dr. Loren G. MacKinney, who discussed "Iatrogenic Poisoning."

Dr. Fred Patterson, member of the clinical faculty of the Department of Medicine, talked on "Differential Diagnostic Procedure in Hypertension." Dr. C. C. Fordham III of the same department spoke on "Renal Hypertension."

* * *

Dr. Rex W. Speers, assistant professor of child psychiatry in the Department of Psychiatry, led a discussion on child psychiatry Wednesday evening, November 29, in the Institute of Pharmacy Building in Chapel Hill.

The discussion was the first in a series of monthly meetings relating to various aspects of the emotional disturbances of childhood. The meetings are being sponsored by the Triangle Area Parents Discussion Group of the North Carolina State Chapter of the National Organization for Mentally Ill Children.

The meetings will attempt to trace the experiences of a hypothetical schizophrenic child and his parents in North Carolina from the time the parents may suspect emotional disturbances in the child, through diagnosis and treatment.

The meeting was open to the general public and all those interested in the mental health of children.

* * *

NEWS NOTES FROM THE DUKE UNIVERSITY MEDICAL CENTER

Dr. Ewald W. Busse, chairman of the Duke University Medical Center's Department of Psy-

chiatry, was recently named a director of the American Board of Psychiatry and Neurology.

The Board is responsible for determining the qualifications and training for specialization in the fields of neurology and psychiatry.

Appointments to the 12-member board are made by the American Medical Association, the American Psychiatric Association, and the American Neurological Association.

Dr. Busse is one of four members representing the American Psychiatric Association. He will serve for eight years.

Dr. Busse is director of the Duke University Center for the Study of Aging and holds a number of advisory positions in governmental health groups and professional organizations. He has been a Duke Medical Center faculty member since 1953.

* * *

A Duke University Medical Center exhibit on the surgical repair of injuries to the face was chosen third place winner among some 100 exhibits shown at the annual meeting of the Southern Medical Association.

Dr. Nicholas G. Georgiade, professor of plastic, maxillofacial and oral surgery, presented the exhibit with Dr. Richard L. Farquhar of the Medical Center staff.

* * *

Duke Hospital has acquired a new tool to assist diagnosis and, at the same time, lower the patient's cost for a group of important laboratory procedures.

Called an electrolyte analyzer, the device makes measurements of four different vital constituents of blood simultaneously and automatically: sodium, potassium, chlorides and carbon dioxide. This information helps the physician determine whether such organs as the kidneys and lungs are functioning properly, and, if not, assists in establishing and evaluating therapy.

The cost to the Duke Hospital patient for this group of major laboratory assays will now be cut from \$20 to \$7.

The electrolyte analyzer facilitates patient care because the measurements can routinely be made several times daily if needed instead of once a day as was formerly the case.

* * *

Norman K. Nelson has been appointed Public Information Officer for the Duke University Medical Center. Formerly assistant director of the University's Bureau of Public Information, Nelson also has been responsible for Medical Center public information since 1956.

In his new status he will be concerned entirely with the handling of mass media communication for the School of Medicine, Duke Hospital, the School of Nursing, and other units that comprise the Duke Medical Center. The new position was established as part of a long-range program

to provide more comprehensive information services for the University, Hopkins said.

* * *

Ralph E. Jennings has joined the staff of Duke Hospital as an administrative assistant.

Formerly, Jennings was assistant administrator at Memorial Hospital in Johnson City, Tennessee, for some two years.

NEWS NOTES FROM THE

BOWMAN GRAY SCHOOL OF MEDICINE OF WAKE FOREST COLLEGE

At the recent meeting of the Southern Society for Pediatric Research, Dr. Henry G. Cramblett, associate professor of pediatrics, was elected secretary-treasurer of the society.

* * *

Dr. Weston M. Kelsey, professor of pediatrics, has been elected president of the North Carolina Pediatric Society.

* * *

Dr. William R. Krigbaum, associate professor of chemistry at Duke University, was the principal speaker at the meeting of the Sigma Xi Club on December 13.

* * *

At the regional meeting of the American College of Physicians, held at the Bowman Gray School of Medicine, Dr. Donald M. Hayes, assistant professor of medicine, presented a paper on "Postsplenectomy Thrombocytosis" by Drs. Hayes, C. L. Spurr, professor of medicine; and Lucile W. Hutaff, associate professor of preventive medicine.

SOUTHERN MEDICAL ASSOCIATION

The Southern Medical Association will hold its fifty-sixth annual meeting in Miami Beach, Florida, November 12-15, 1962. Headquarters will be the Hotel Fontainebleu.

Officers elected at the fifty-fifth annual meeting in Dallas, Texas, November 6-9, 1961, were: Dr. A. Clayton McCarty, Louisville, Kentucky, president; Dr. Fount Richardson, Fayetteville, Arkansas, president-elect; Dr. Robert D. Moreton, Fort Worth, first vice president; Dr. Charles Max Cole, Dallas, second vice president; Robert F. Butts, Birmingham, executive directors; C. P. Loran, Birmingham, advisor and special consultant; and Dr. R. H. Kampmeier, Nashville, editor of the **Southern Medical Journal**.

* * *

The Section on Ophthalmology and Otolaryngology of the Southern Medical Association, at its meeting in Dallas, Texas, November 5-9, 1961, elected the following new officers for 1962; chairman-elect: Dr. Harold Tabb, New Orleans, Louisiana; vice chairman, Ophthalmology: Dr. Kenneth Whitmer, Miami, Florida; vice chairman, Otolaryngology: Dr. James R. Chandler, Miami,

Florida; secretary: Dr. Albert C. Esposite, Huntington, West Virginia; associate secretary: Dr. Neil Callahan, Portsmouth, Virginia.

The next meeting will be held in Miami Beach, Florida, November 12-17, 1962. For further information please write the secretary, Dr. Albert C. Esposite, Huntington, West Virginia.

AMERICAN DIABETES ASSOCIATION

The subcommittee on Teaching of Diabetes in Hospitals, of the American Diabetes Association's Committee on Professional Education, believes that it is of the utmost importance that the basic essentials in the treatment of diabetes mellitus should be familiar to all physicians regardless of their type of practice. For this reason it has released for the widest possible distribution a list of nine important elements in the management of the condition.

Many other aspects of treatment deserve attention, but the following are the most important:

1. Diet
2. Urine testing
3. Action of insulin and other hypoglycemic agents
4. Technique of insulin injection and sites for it

5. Care of syringe and of insulin
6. Symptoms of hypoglycemia
7. Symptoms of uncontrolled diabetes
8. Care of the feet
9. What to do in case of acute complications

Extra copies of the statement embodying this list are available from the Association upon request for distribution to individual physicians and for posting on bulletin boards, etc. Please address inquiries to the American Diabetes Association, Inc., 1 East 45th Street, New York 17, New York.

AMERICAN THERAPEUTIC SOCIETY

An award of \$500 in addition to travel expenses is offered to the author of the best essay in the field of therapeutics and clinical pharmacology, according to a recent announcement by the American Therapeutic Society.

Any scientist or physician in residency or fellowship status or within three years following residency or fellowship is eligible for the award.

A formal paper is required, with presentation at the annual meeting of the society, to be held in Chicago, June 21-24, 1962, describing original work done by the essayist alone or as an important member of a research team.

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An original manuscript and letter from the chief of service or laboratory indicating his approval of the material being entered in competition must be in the hands of the secretary, Oscar B. Hunter, Jr., M.D., 915 19th Street, N. W., Washington, D. C., by March 1, 1962.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA

Six additional Fellowships for Residents in Ophthalmology, to be awarded July 1, 1962, have been announced by the Guild of Prescription Opticians of America, Inc., through its President, H. Clinton Green, of Pittsburgh, Pennsylvania. Applications for these fellowships must be received by May 15, 1962.

Each fellowship is for a total of \$1,800, payable in monthly stipends over the period of a three-year residency. The grants are limited to residencies at approved institutions offering three-year residencies, but residencies which begin any time during the calendar year are eligible. Application forms and covering information are available by writing to FELLOWSHIPS, Guild of Prescription Opticians of America, Inc., 110 East 23rd Street, New York 10, N. Y.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next scheduled examinations (Part II) oral and clinical, for all candidates, will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from April 9 through 14, 1962. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I Examination will be notified of their eligibility for the Part II Examinations as soon as possible.

Current Bulletins of the American Board of Obstetrics and Gynecology, outlining the requirements for application, may be obtained by writing to the Secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

POSTGRADUATE SEMINAR ON ARTHRITIS AND RHEUMATISM

A postgraduate seminar on Arthritis and Rheumatism will be held at the Hotel Roanoke in Roanoke, Virginia, on April 14 and 15. The seminar is being planned by the Virginia Chapter of the Arthritis and Rheumatism Foundation, with the cooperation of the Roanoke branch of



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When vitamin A in high dosage is given for a prolonged period, it is advisable that treatment be interrupted at intervals to avoid possible

the chapter, as part of its program of professional education. Support of the event has been promised by the Merck Sharp and Dohme Postgraduate Program.

The registration fee will be a nominal one and it is suggested that interested physicians plan, now, to attend. Reservations should be sent to the office of the Executive Director of the Virginia Chapter at P. O. Box 1004, Lynchburg, Virginia.

AMERICAN COLLEGE OF CHEST PHYSICIANS

Southern Chapter

The Southern Chapter of the American College of Chest Physicians held its eighteenth annual meeting in Dallas, Texas, November 4-5, 1961.

The following officers of the Southern Chapter were elected: Henry R. Hoskins, San Antonio, president; Joseph W. Peabody, Jr., Washington, D. C., first vice president; William S. Klein, Baltimore, second vice president; Watts R. Webb, Jackson, Mississippi, secretary-treasurer.

AMERICAN COLLEGE OF SURGEONS

The American College of Surgeons will hold its final 1962 sectional meeting in Washington, D. C., April 16 through 18. More than 1,500 doctors are expected to attend this meeting, open to all members of the medical profession. Headquarters hotel is the Sheraton-Park.

Dr. Robert J. Coffey, professor of surgery, Georgetown University, is chairman of the advisory committee on local arrangements. The committee has planned a program of interest to general surgeons and surgical specialists. Subjects will include: occlusive arterial disease, gastrointestinal bleeding, endocrine disorders, coordinated care in severe trauma, surgery of the biliary-pancreatic tract, and what's new in pediatric and in geriatric surgery.

"The Surgeon and Medicolegal Problems" will be discussed on the opening morning by Murdock Head, M.D., D.D.S., LL.B., Washington.

Of interest to medical directors or secretaries of approved cancer programs and registries is the special all-day cancer workshop, sponsored by the College's cancer committee, at Sibley Memorial Hospital on April 18.

The College's annual Clinical Congress will be held in Atlantic City, October 15-19, 1962.

JOINT BLOOD COUNCIL, INC.

Over 4,500 hospitals, Red Cross, and community blood banks are now being surveyed to determine and record their identities and relationship to transfusion services and blood banking. Specific data is being gathered to determine the number of units of human blood collected and transfused by each institution. This and other

information will be published early in 1962 in a third edition of "Directory of Blood Transfusion Facilities and Services" by the Joint Blood Council.

The two previous Directories, 1958 and 1960, have met with marked success. Information useful to the hospitals, blood banks, medical libraries, federal medical agencies, and Civil Defense planning groups are used daily.

All facilities collecting, processing, and using blood are requested to complete the directory data cards and return them immediately. No charge is made for the listing. The Directory service has the support of the Council's Member Institutions and the federal medical services.

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

The Division of Radiological Health, Public Health Service, is the focus of Federal activities to develop an increased nationwide capability for coping with the health hazards of ionizing radiation.

The U. S. Department of Health, Education, and Welfare has issued a pamphlet entitled "The Public Health Service in Radiological Health" which describes the mission and goals of the Division and the career opportunities it offers to professional personnel with an interest in radiological health. The pamphlet is available from the Division of Radiological Health, Public Health Service, Washington 25, D. C.

* * *

Men 65 years of age or older had some part of their hospital bill covered by insurance in 53 cases out of 100, according to a two-year study released by the U. S. Public Health Service.

For women in the same age range, the pattern was similar. Their hospital bills were partly covered in 49 cases out of 100.

For men under 65, the study points out that some part of the bill was covered by insurance in at least 71 cases out of 100 and in some age groups this total rose to 76.

* * *

The Public Health Service said recently that very little influenza has as yet been reported around the nation, and emphasized the importance of using available supplies of influenza vaccine to immunize persons in the high-risk groups before the onset of winter.

Groups to whom vaccination is most important are: (1) persons of any age who suffer from chronic diseases of the heart, lungs and circulatory system; (2) pregnant women, and (3) persons over 65 years of age. Between September, 1957, and March, 1960, persons in these three groups accounted for most of the 86,000 influenza-related deaths.

Dr. Willis Robert Boss, formerly Science Attache to the U. S. Embassy in Tokyo, Japan, has been appointed Chief of the Training Branch, Grants and Training Area, of the Public Health Service's National Cancer Institute. In his new position he has assumed responsibility for graduate training fellowship and grant programs of the Institute.

* * *

The nation's battle against tuberculosis shows signs of slowing down, Dr. Edward T. Blomquist, Chief of the Public Health Service's Tuberculosis Program, warned recently.

Data just received from 50 states and the District of Columbia put the number of new active cases of tuberculosis reported in 1960 at 55,494, a rate of almost 31 per 100,000. Although this represents a five per cent decline in rates from 1959, the drop is below that considered necessary to eliminate the disease as a major public health problem, Dr. Blomquist said.

"We do not expect an upsurge in tuberculosis in this country," Dr. Blomquist said. "But the problem has reached the stage where the decline must be accelerated or the prevalence of disease will level off, and tuberculosis will drag out as a long-term, expensive public health problem."

VETERANS ADMINISTRATION

One of the outstanding honors in the field of tuberculosis, the Varrier-Jones Memorial Medal, was presented to Dr. William H. Feldman of the Veterans Administration during the recent meeting of the American College of Chest Physicians in Denver, Colorado.

The Medal, a British award, is given to an eminent worker in the field of tuberculosis every two years. It is a memorial to Sir Pendrill Varrier-Jones, the founder of Papworth Village Settlement in England, a pioneer rehabilitation center for TB patients.

Dr. Feldman is the VA's chief of laboratory research in pulmonary diseases, in Washington, D. C.

* * *

The Veterans Administration hired 1,502 physically handicapped persons during Fiscal Year 1961, an increase of more than 20 percent over the 1,249 appointed during Fiscal Year 1960.

Even with normal turnover, this brings the total of handicapped persons on the VA employment rolls to more than 11,000 in the 170 hospitals, 67 regional offices and 91 out-patient clinics from coast to coast.

* * *

Dr. Albert E. Pugh, chief of staff at the Veterans Administration Hospital, Durham, North Carolina, has been appointed director of the VA hospital at Clarksburg, West Virginia.

The Month in Washington

The Kennedy Administration and other main supporters of medical care of the aged under social security are preparing to make an all-out effort to push the legislation through Congress in the 1962 session.

Their campaign poses a serious challenge to the medical profession and its allies in the fight against such compulsory government health schemes.

It is too early to evaluate the effect on the legislation of changes in House Democratic leadership and House Ways and Means Committee membership. The White House has been exerting pressure in an effort to have a congressman supporting its views named as a replacement for Rep. Frank Ikard (D., Tex.), who resigned. Ikard opposed proposals to put health care under social security.

Administration officials from President Kennedy down publicly gave the Administration medical care legislation, the King-Anderson bill, top priority for the 1962 session. During the interim after the adjournment of the 1961 session, the Administration held a political roadshow in key cities in an effort to build up public support for the King-Anderson bill and other Administration proposals that did not fare so well in Congress. At a number of the so-called White House Regional Conferences, physicians forcefully expressed the medical profession's opposition to putting health care under social security.

The AFL-CIO geared for a renewed fight for the Administration legislation. A new national organization of the elderly has been formed with the main purpose of lobbying for the King-Anderson bill. It is the National Council of Senior Citizens for Health Care Through Social Security. Former Rep. Aime J. Forand (D., R.I.), who sponsored such legislation when he was in Congress, was the leading figure in organizing the group and is national chairman.

On the other side of the fight, there also

From the Washington Office of the American Medical Association.

is a new organization—The American Medical Political Action Committee. It is a non-profit, voluntary, non-partisan, unincorporated committee set up last May with the approval of the A.M.A. Board of Trustees. AMPAC—which functions independently of medical organizations and societies whether at the national, state or local level—was organized to meet “an unmet need—the need of providing the medical profession with an opportunity to assume a more active and effective role in public affairs.” The A.M.A. Board of Trustees House of Delegates meeting at Denver, in November urged that all physicians, their wives and interested friends join AMPAC and similar political action committees in their states and communities (See report elsewhere in this issue).

Dr. Leonard W. Larson, A.M.A. president, warned the House of Delegates that physicians “are engaged in a historic struggle to preserve our country’s unique system of medical care and our stature as a profession.” He said both are “seriously threatened” by such legislative proposals as the King-Anderson bill. (Dr. Larson’s address is published in full in this issue—Ed.)

A leading congressional opponent of health care under social security also warned of the seriousness of the fight ahead. Sen. Wallace F. Bennett (R., Utah), a member of the Senate Finance Committee which handles such legislation, told students at Harvard University Medical School that undoubtedly there would be “a determined drive to rush H.R. 4222 (the King-Anderson bill) through the Congress” in 1962.

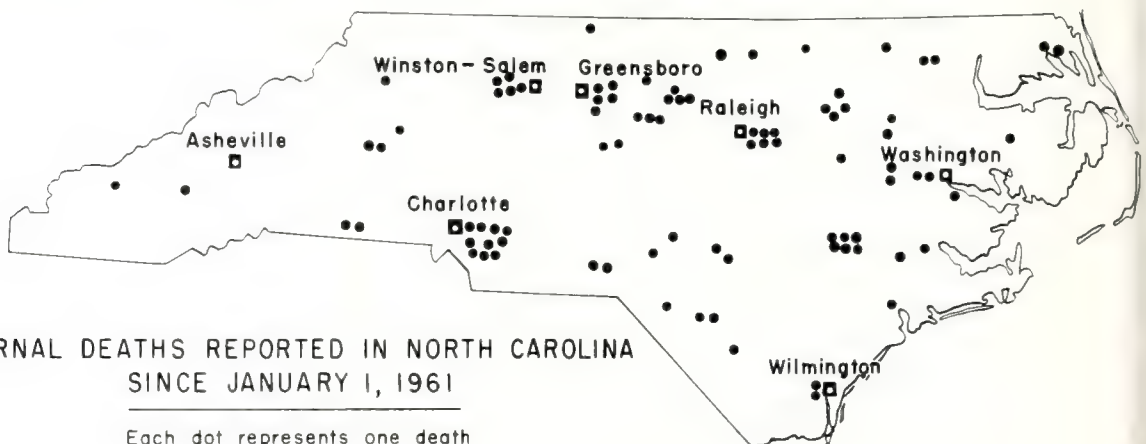
“The propagandists who are behind the determined drive for a system of socialized medicine have latched on to an emotional appeal in trying to push this legislation through the Congress,” Bennet said. “They have tried to create a public image that the A.M.A. and any individual who opposes this plan is motivated by selfish interests.

“As one who is vigorously opposed to compulsory Federal medical care, I resent the tactics used by those who advocate this system of socialized medicine. There is an answer to this problem of meeting the medical needs of our aged, and I frankly believe that it is being honestly met by our present voluntary health insurance programs and by the cooperative federal-state aid to our needy aged who are incapable of paying their own medical expenses.

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1. Solimann, T.: A Manual of Pharmacology and Its Applications to Therapeutics and Toxicology, ed. 8, Philadelphia, W. B. Saunders Company, 1957, p. 206.



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PAGE 643

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Composition: HASAMAL: Each tablet or capsule contains: Acetylsalicylic acid, $2\frac{1}{2}$ gr., acetophenetidin, $2\frac{1}{2}$ gr., phenobarbital, $\frac{1}{4}$ gr., and hyoscyamus alkaloids, .0337 mg. HASACODE combines the same formula as Hasamal with $\frac{1}{4}$ gr. codeine phosphate, and HASACODE "STRONG" $\frac{1}{2}$ gr. codeine phosphate.

Dosage: Hasamal: One or two tablets or capsules every 3 to 4 hours. **Hasacode:** One or two tablets every 3 or 4 hours; not more than 8 tablets should be taken in 24 hours. **Warning:** Do not use in patients with glaucoma or in elderly patients with prostatic hypertrophy.

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“nutrition...present as a modifying or complicating factor in nearly every illness or disease state”¹

1. Youmans, J. B.: *Am. J. Med.* 25:659 (Nov.) 1958

cardiac diseases “Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin C to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease.”²

2. Kampmeier, R. H.: *Am. J. Med.* 25:662 (Nov.) 1958

arthritis “It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . .”³

3. Fernandez-Herzby, L.: *Lahey Clinic Bull.* 11:12 (July-Sept.) 1958

digestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.⁴ Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.⁵

4. Sebrell, W. H.: *Am. J. Med.* 25:673 (Nov.) 1958. 5. Pollack, H. and Halpern, S. L.: *Therapeutic Nutrition*, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

degenerative diseases “Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult.”⁶

6. Overholser, W., and Fong, T. C. C. in Stieglitz, E. J.: *Geriatric Medicine*, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

infectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.⁷

7. Goldsmith, G. A.: *Conference on Vitamin C*, The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported in: *Medical Science* 8:772 (Dec. 10) 1960.

diabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.⁸ “Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . . There is some evidence of interference with normal riboflavin utilization during catabolic episodes.”⁹

8. Duncan, G. G.: *Diseases of Metabolism*, 4th edition, W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: *Am. J. Med.* 25:708 (Nov.) 1958.

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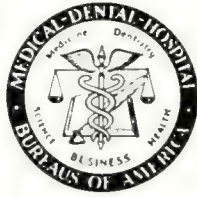


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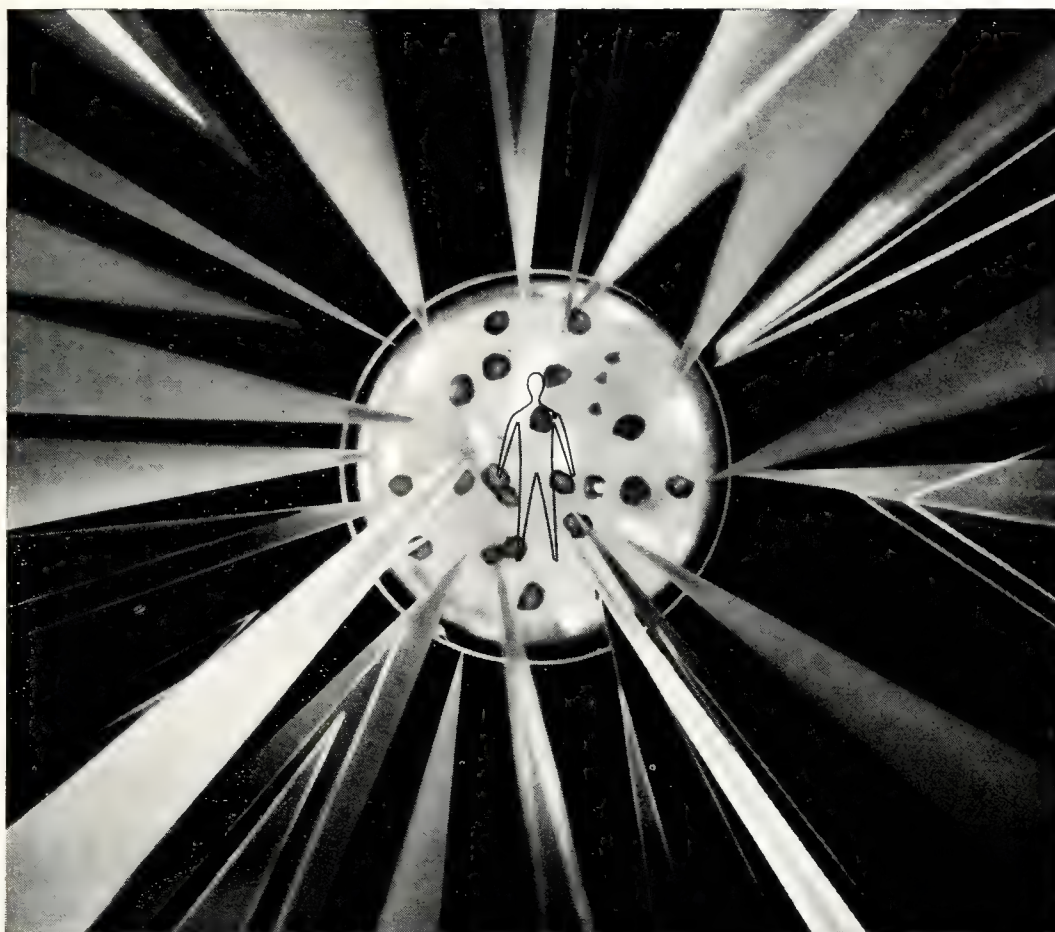


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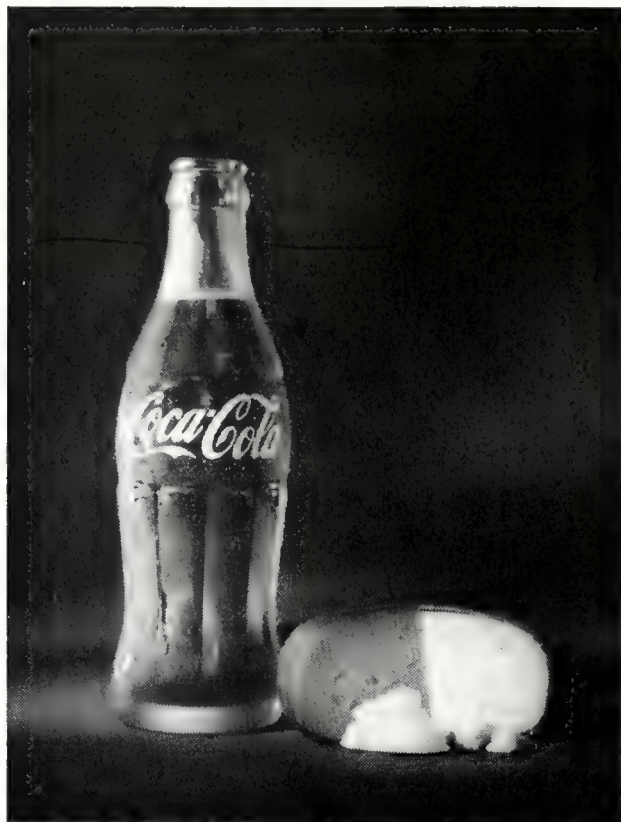
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1. Clark, T. E., and Jochem, G. G.: Angiology 11:361 (Aug.) 1960.

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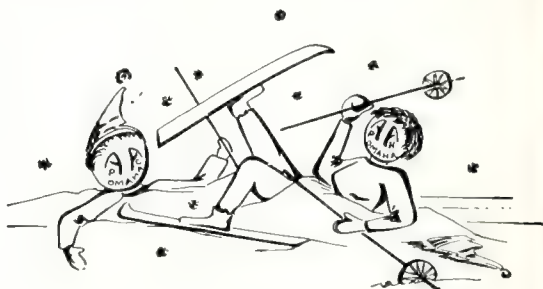
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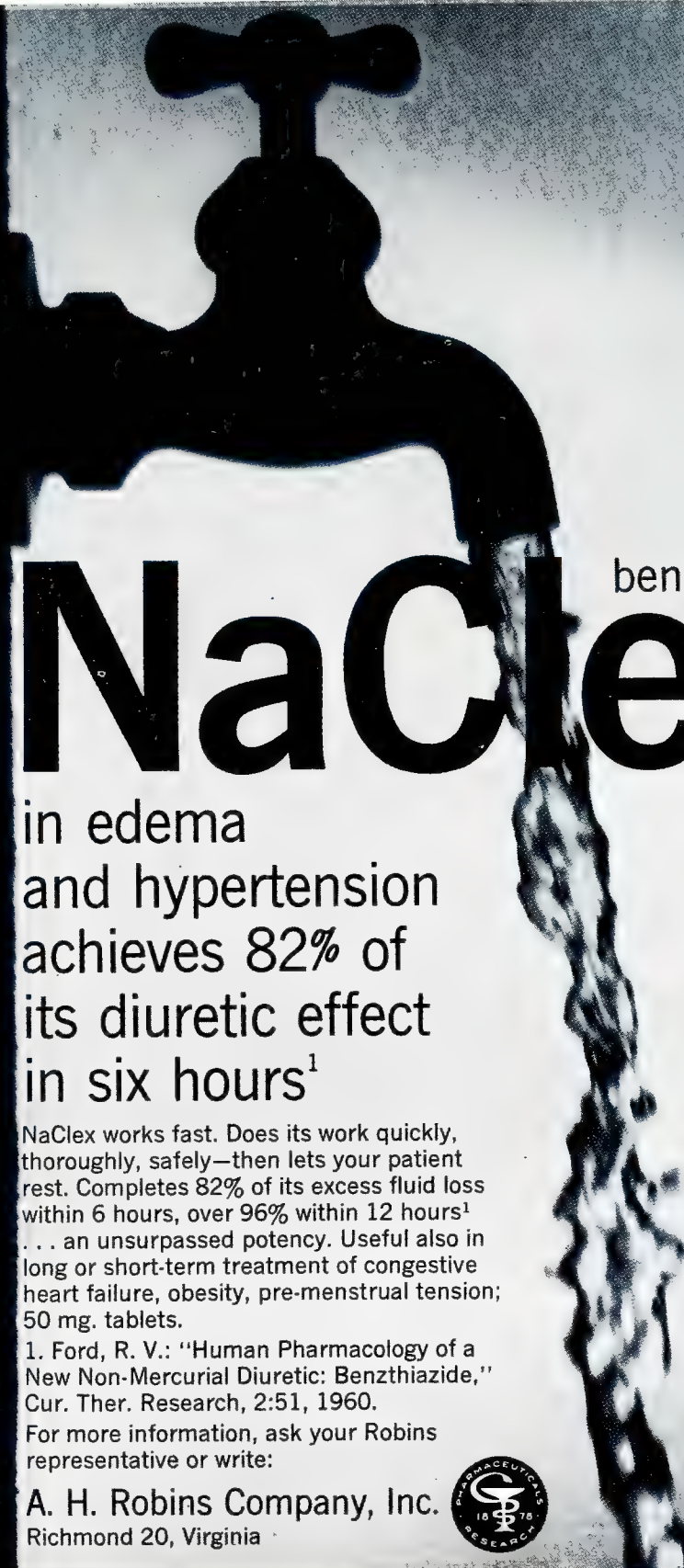
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1. Ford, R. V.: "Human Pharmacology of a New Non-Mercurial Diuretic: Benzthiazide," Cur. Ther. Research, 2:51, 1960.

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References: (1) Malone, F. J., Jr.: *Mil. Med.* 125:836, 1960. (2) Martin, W. J.; Nichols, D. R., & Cook, E. N.: *Proc. Staff Meet. Mayo Clin.* 34:187, 1959. (3) Ullman, A.: *Delaware M. J.* 32:97, 1960. (4) Petersdorf, R. G.; Hook, E. W.; Curtin, J. A., & Grossberg, S. E.: *Bull. Johns Hopkins Hosp.* 108:48, 1961. (5) Jolliff, C. R.; Engelhard, W. E.; Ohlsen, J. R.; Heidrick, P. J., & Cain, J. A.: *Antibiotics & Chemother.* 10: 694, 1960. (6) Lind, H. E.: *Am. J. Proctol.* 11:392, 1960.

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Medical Journal



February, 1962
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IN THIS ISSUE:

Thromboembolic Complications of Trauma

William G. Anlyan, M.D.

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Thromboembolic Complications of Orthopedics and the Surgery of Trauma

WILLIAM G. ANLYAN, M.D.

J. LEONARD GOLDNER, M.D.

and

FRANK W. CLIPPINGER, M.D.

DURHAM

Thromboembolic complications remain a major hazard of orthopedics and trauma in spite of many detailed advances in patient care. Specific and representative examples of thromboembolism that have complicated injuries and fractures seen by us during the past 12 years will be reviewed in this paper. The treatment of thromboembolic disease is also discussed in order to include the more recent developments in therapy.

Arterial complications following skeletal trauma are usually recognized soon after the injury, while venous thromboembolism is usually a late complication which may threaten the life of the patient or disable an extremity for life. Venous thromboembolism may complicate limb fractures, soft tissue trauma, back injury, or injuries of the upper extremities. The venous thrombosis may appear in the same location as the primary injury or in an area seemingly unrelated to the trauma. In either instance, prompt recognition and vigorous treatment of the complication may circumvent death from pulmonary embolism or minimize years of difficulty as a result of venous insufficiency.

Illustrative Cases

Case 1. Multiple fractures of the leg complicated by unrecognized thromboembolism

The patient was a 40 year old college professor who had sustained a compound fracture of the distal tibia during World War II. His leg had been immobilized for 13 months. Deep venous thrombosis had developed insidiously, and no specific therapy had been initiated. Postphlebotic sequelae were noted after the cast was removed, and during the ensuing 10 years he was unable to stand for more than an hour without discomfort and swelling in the affected leg. The postphlebotic sequelae were improved moderately by cleaning out, by Linton's method, the superficial subcutaneous tissue on the medial aspect of the lower part of the leg. This procedure was done in 1956, and with the continued aid of an elastic support he has noted improvement. He can now stand for several hours before discomfort occurs, and he notices less over-all swelling.

This kind of venous thrombosis is marked by an insidious onset. During the first two or three weeks following trauma, however, a persistent temperature elevation, unusual swelling of the foot, or pain would suggest the development of venous thrombosis. Particular care must be taken in the treatment of compound fractures of the tibial shaft associated with extensive soft tissue injury in the popliteal area of the upper anterior part of the leg. Dressings, sheet wadding, and plasters should be applied smoothly and carefully, and excessive friction of the knee joint should be avoided. Early elevation and support of the extremity should be observed, and the patient should be encouraged to exercise the toes upward and downward. The position of the leg should be changed as frequently as possible.

From the Department of Surgery, Division of Orthopedic Surgery, Duke University School of Medicine, Durham, North Carolina.

Case 2. Venous thrombosis of the left leg following fracture of the right femur and head injury

As a result of an automobile accident, a 21 year old white male college student sustained a severe cerebral concussion and a puncture type of compound fracture of the right femur, but no other major injury. Skeletal traction with a Steinmann pin in the tibia in conjunction with a Thomas ring splint was utilized with difficulty in treating the fracture. The patient was irrational and thrashed about constantly, moving all four extremities many times each hour. Five days following the injury he was noted to have a slight increase in temperature, accompanied by rapid, diffuse swelling of the left calf, followed by swelling of the left thigh and venous distention during the next 12 hours. He received anticoagulant therapy with a good clinical response and no evidence of residual swelling, pain, fibrosis, or venous distention.

This case is an example of venous thrombosis occurring in the limb opposite the one receiving the major injury. This limb had been kept lower than the injured one, which was in traction and had been frequently in a position of flexion at the knee and hip. No constricting restraints had been applied. Severe temporary contracture of the knee had occurred in conjunction with the development of venous thrombosis, but this condition cleared gradually following therapy and subsidence of edema.

Compression wrapping of the uninvolved extremity, frequent motion, assistive exercise, and elevation have been suggested as prophylaxis against venous thrombosis in such cases, but even these measures are not always successful. When used in conjunction with adequate hydration, however, they are certainly worth emphasizing, particularly in the unconscious patient.

Case 3 Venous thrombosis following multiple injuries (delayed onset)

This patient was a 61 year old white man who, following an automobile accident, was admitted with closed fractures of the medial malleolus on both sides, a fracture of the upper third of the left fibula, and multiple fractures of the ribs with partial right pneumothorax. The usual treatment was carried out, short plaster casts were applied, and he was discharged on the fourteenth day following injury.

On the twenty-third day, nine days after leaving the hospital, the patient returned with mod-

erate swelling of the lower part of the left leg and bluish discoloration of the entire extremity as the result of venous distention. Findings were consistent with venous thrombosis, and he was admitted to the hospital and given 150,000 units of Thrombolylin every six hours for the first 24 hours, followed by 25 mg. of heparin every six hours for three days. Coumarin was then started and maintained for an additional week.

In this case the fracture was located in the upper segment of the leg adjacent to the anterior compartment, with a greater amount of direct trauma to the calf, which might have increased the possibility of thrombosis in this extremity. Uniform pressure from the plaster cast obviously did not prevent the thrombosis from forming. The patient was 61 years of age, and both lower extremities were immobilized; he could not move easily or freely, and an element of dependency was present. It was not possible to determine how early the thrombosis occurred, but the clinical symptoms were delayed. His response to the combination of a fibrinolytic agent followed by anticoagulant therapy in the form of heparin and coumarin was good.

Case 4. Venous thrombosis following soft tissue injury to the thigh

The first patient was a 19 year old university student who sustained a soft tissue injury to the lateral aspect of his right thigh while playing intramural football. The injury was not severe enough to warrant hospitalization, but he did notice swelling, localized pain, and a limp. He was sufficiently improved to resume football three days later, and was reinjured in the same area, with subsequent swelling and pain. He was admitted to the hospital for the application of compression dressings and ice. During the following 36 hours pain developed in the medial aspect of the thigh and over the femoral vessels, with swelling of the thigh down to the knee. Venous distention was evident. A presumptive diagnosis of deep venous thrombosis of the right leg was made, although a venogram was not done. In view of the swelling on the inner aspect of the thigh (which had not been subjected to direct trauma) the tenderness over the femoral vessels, the saphenous vein pain, and the venous distention, he was treated with anticoagulant drugs and improved gradually during the following week. There were no residual postphlebotic sequelae, but some induration was present, probably as a result of periosteal hemorrhage and soft tissue fibrosis.

We presume that this student had soft

tissue trauma on two occasions, and deep venous thrombosis developed in an adjacent area of the same extremity.

During the same semester another undergraduate student who had received an extensive and painful blow to the thigh while participating in intramural sports was admitted to the hospital because of swelling and pain in the thigh which had occurred within four hours after the injury. The symptoms did not respond to the usual methods of treatment, and within four days he began to have fever, pain on motion of the leg, swelling of the calf and foot, and venous distention. He too was started on anticoagulant therapy, and improved markedly in the ensuing days.

Case 5. Massive venous thrombosis, delayed, following back injury

This patient was a 21 year old male who had sustained an injury to the lumbosacral region following a fall from a scaffolding. There was no evidence of fracture or dislocation, but he complained of back pain and had been confined to bed intermittently for a month. Approximately four weeks after the accident he noted on awakening one morning extensive swelling of both legs. He was admitted to the hospital four days later, and venograms indicated that the entire venous system in both lower extremities was thrombosed except for the long saphenous vein, which at the saphenofemoral junction drained through collaterals rather than into the femoral and iliac veins. The evidence favored extensive bilateral venous thrombosis involving both lower extremities. He was treated with fibrinolytic for three days, followed by heparin and coumarin. His condition improved, but several months later he still had noticeable swelling and bluish discoloration of both legs, discomfort on standing, and disabling postphlebotic sequelae.

Although this man had no specific injury to the extremities, he was confined to bed for a period during which extensive bilateral venous thrombosis developed. Speculation as to the cause was fruitless. His response to fibrinolytic and anticoagulant therapy was unsatisfactory, particularly since the treatment was not begun until four days after the development of thrombosis. This case emphasizes the importance of prompt recognition and treatment of venous thrombosis to obviate disabling postphlebotic sequelae.

Case 6. Venous thrombosis following severe soft tissue injury to the knee joint and the calf

The patient was a 19 year old football player admitted to the hospital within an hour following a knee injury which resulted from lateral blocking and which forced the knee into valgus and hyperextension. No evidence of anterior or posterior dislocation was present, but there was a hemarthrosis of the left knee, evidence of partial tearing of the medial collateral ligament, hematoma in the gastrocnemius soleus muscles, and probable rupture of the plantaris tendon. Immediate treatment included compression dressings, light traction, and ice. A plaster cast was applied within 48 hours, and the extremity was elevated.

Six days following admission the cast, which had been split on two occasions because of pain and swelling in the calf, was removed completely, and acute tenderness over the saphenous vein and calf vein and venous distention were noted. The limb had grown progressively larger, and a slight elevation in temperature was noted. The evidence favored deep venous thrombosis, and the patient was treated with heparin initially and with Dicumarol for a total of eight days. The swelling decreased rapidly, with clearing of the venous distention and alleviation of pain. He recovered without residual sequelae and was able to continue playing football for three additional years. Five years later he still showed no signs of edema, pain, or venous distention.

The differential diagnosis between partial rupture of any segment of the triceps surae as opposed to venous thrombosis is difficult. It is evident that both can occur concomitantly, with the muscle trauma resulting first and the venous thrombosis following anywhere from 48 hours to two weeks. Careful observation of the involved extremity disclosing progressive swelling and pain should make one suspicious of venous thrombosis.

Case 7. Venous thrombosis and pulmonary embolism following a linear fracture of the patella

A 41 year old woman was seen in the emergency room several hours following a bus accident. X-rays showed a vertical linear fracture of the patella, without displacement. The extremity showed only moderate swelling. A cylinder cast was applied and the patient was allowed to continue on crutches. On the sixth day following injury the cast was removed because it was loose, and at that time there was minimal effusion over the patella. The day following,

swelling developed in both lower extremities, more severe on the injured side. Venous distention was present bilaterally, and the patient was also complaining of pleuritic pain on the right side. X-rays showed a lesion in the lower lung field compatible with pulmonary embolism. She was treated with fibrinolysin followed by heparin and Dicumarol for a total of three weeks. The obvious signs subsided. There was no additional evidence of pulmonary embolism, but in the ensuing months she did have moderate swelling, venous distention, and some discomfort in the left foot and leg.

The patient's activities following the injury were diminished considerably, but she was up and about a few times each day. Despite this early ambulation, bilateral venous thrombosis with pulmonary embolism developed. Unfortunately there is no way to avoid such complications.

Case 8. Venous thrombosis of the lower extremity following operation for non-union of the humerus for which iliac bone graft was used

This 30 year old male who had had three previous operations on the right humerus for non-union underwent bone grafting from the right ilium. Postoperatively, the extremity was suspended in a well padded cast, and he remained on bedrest. A shoulder spica was not used during the initial postoperative period. On the seventh day following the operation he complained of tenderness in the calf muscles on both sides, and on the eighth day he had a positive Homan's sign on the right, with a 3-cm. enlargement of the right calf, 1 plus pitting edema, and pain along the course of the saphenous vein. A presumptive diagnosis of venous thrombosis was made, and the patient was given fibrinolysin intravenously, with rapid relief of pain, swelling, and edema during the next 12 hours. Heparin and coumarin were then used for completion of therapy. He was permitted to be up in a brace without any constriction around the abdomen 10 days following the bone grafting. Eighteen months later he still showed no signs of swelling, pain, or edema in the lower extremities, and the fracture had united.

This patient was inactive for a week following an operation on the arm. He did have some pain about the right hip, from which bone had been removed for grafting. It is difficult to implicate directly the fact that the bone graft was taken from the same extremity in which the venous thrombosis developed, although there may be some relationship. The patient also had an elevated uric acid level, and is known to have gout.

Case 9. Recurrent venous thrombosis associated with compound fracture of the tibia

The patient was a 41 year old man who had had a compound fracture of the left tibia two years prior to examination. He had a large skin defect over the pretibial surface, and was admitted for resurfacing the area. Massive, acute venous thrombosis developed in this extremity while the hip and knee were in a flexed position during the time that the flap was being transferred from the wrist to the leg. Considerable fibrosis and induration were present initially, and it was assumed that venous insufficiency was present prior to the acute episode. He was treated with fibrinolysin for 24 hours, followed by heparin and coumarin. Clinically, there was very little obvious change in the size of the extremity or in the edema immediately following the anticoagulant therapy, but the leg did improve enough to allow completion of the resurfacing procedures.

Many factors were involved in the onset of venous thrombosis in this case. Acute flexion of a knee that has already been subjected to severe trauma is certainly more likely to lead to the development of venous thrombosis than if the limb were healthy. One can assume that the use of anticoagulant therapy decreased the severity of permanent change and also diminished the risk of pulmonary embolism.

Case 10. Venous thrombosis and pulmonary embolus followed by vena caval ligation, all associated with fracture dislocation of the hip

The patient was a 50 year old man who had an unreduced fracture-dislocation of the hip secondary to an automobile accident which had occurred several days prior to his admission to the hospital. Open reduction of the fracture was done through a posterior approach, with the patient in a prone position under general anesthesia. Postoperatively a tibial pin was inserted for light traction, but no plaster was used.

Two days after the operation the patient complained of pain in the left calf and the well leg, and there was increased heat and pain on dorsiflexion of the foot. A presumptive diagnosis of venous thrombosis was made, and heparin therapy was started. Despite this treatment the patient had three episodes of chest pain during a 72-hour period and showed clinical evidence of multiple pulmonary emboli. It was decided to carry out a vena caval ligation and to continue treatment with heparin and Dicumarol. Dicumarol was continued for several additional weeks following discharge.

Three years after this treatment the patient has minimal swelling in the left leg after being in an upright position for several hours, but there is no venous distention, pain, or other evidence of phlebitic sequelae.

The inciting cause of venous thrombosis cannot be determined in this instance. Anticoagulant therapy with heparin was not sufficient to prevent the formation of pulmonary emboli. Fibrinolysin was not available. Early removal of the clot from the femoral vein may have been of help in preventing further advancement of the thrombosis.

Comment

Erb and Schumann¹ have stated that approximately 33 per cent of their patients with hip fractures experienced pulmonary emboli. The exact incidence of venous thrombosis in patients immobilized in casts is not known. Swelling of the injured limb may be due to hematomas, lymph stasis, or venous congestion, and the differential diagnosis may be quite difficult. Venograms may be helpful when done percutaneously; however, if an incision is necessary for a phlebectomy, delayed healing and ulceration may ensue as in case 5. On the other hand, swelling of the uninjured extremity should be regarded as more highly suggestive of venous thrombosis. Also it is not easy for the physician to make a diagnosis of venous thrombosis when observing an extremity immobilized in plaster. The patient may have unremitting pain not relieved by splitting of the cast and the encircling cotton, and the foot may show bluish discoloration and venous congestion. Abnormal elevation of temperature, groin tenderness, and chest pain would certainly favor a diagnosis of venous thromboembolism.

Our experience would also emphasize that the venous thromboembolism may originate in the uninjured limb. Serious postphlebotic sequelae have been observed in the uninjured extremity several months or even years following known injury to the opposite limb.

Treatment

Fibrinolytic agents are being used and evaluated in the treatment of venous throm-

boembolism. This study is still in its preliminary stages, and for this reason it is not possible to recommend optimum methods of using the fibrinolytic agents that are available. These drugs should be used as an adjunct and not as a substitute for the accepted methods of therapy.

At the present time our program includes Thrombolylin, 150,000 units given intravenously every six hours for 24 hours, followed by heparin, 25 mg. every 6 hours, until the clotting time is stabilized. This low dose of heparin is necessary because patients are exquisitely sensitive to heparin following the use of fibrinolysin. The heparin is continued for approximately five days, following which a transition is made to coumarin drugs if it is desired to prolong anticoagulation therapy until the patient has resumed moderate ambulation.

Massive venous thrombosis in the extremity of a young patient recognized early might best be managed by removing the clot from the femoral vein and utilizing fibrinolytic and anticoagulant therapy in order to minimize the postphlebotic sequelae that may produce a lifelong disability.

Prophylactic anticoagulant therapy has not been utilized, as the hemorrhagic complications of such therapy (occurring in approximately 10 per cent of the patients observed) may exceed the incidence of primary or recurrent thromboembolism. Patients with fresh trauma and a previous history of venous thrombosis should be observed very carefully for recurrent thromboembolism.

Prevention

The etiology of venous thrombosis in an uninjured extremity is not established. The factors responsible may be a combination of nonspecific hypercoagulability resulting from injury and stress, as well as venous stasis due to relative immobilization and rest. These points are hypothetical, but they suggest that adequate fluid intake, avoidance of a dependent position of the lower extremities, and encouragement of muscular activity should be routine when managing the injured patient. Also, elastic compression of the entire extremity is prefer-

able to localized compression around the knee, ankle, or groin.

Summary and Conclusions

1. Our experience indicates that any patient who has had trauma to the spine or extremities is a likely candidate for development of venous thromboembolism.

2. Venous thrombosis may appear in an extremity immobilized in plaster, and the diagnosis may be difficult.

3. The uninjured lower extremity may frequently be the site of the primary venous thrombosis.

4. Venography is a useful adjunct in determining the diagnosis of venous thrombosis.

5. Preliminary studies indicate that fibrinolytic agents, if used early in the development of venous thrombosis, are definitely helpful in preventing postphlebotic sequelae.

6. Heparin and coumarin following the fibrinolysis will obviate, in most cases, further development of thromboembolism.

7. Pulmonary embolism occurring in a patient on anticoagulant therapy is usually an indication for vena cava ligation.

8. Prophylactic measures for venous thrombosis are limited, but should be practiced whenever possible.

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Diabetes in Pregnancy

A Review of Results in Seventy-Nine Patients

J. EDWIN CLEMENT, M.D.*

ATLANTA, GEORGIA

The discovery of insulin in 1921 changed the attitude toward pregnancy associated with diabetes by (1) the increased fertility in diabetic women, and (2) the improvement of over-all maternal and fetal outlook. The past three decades have seen the problem of diabetic infertility virtually disappear. At the same time, new concepts of management have emphasized the importance of good diabetic control and early delivery. The various classifications of diabetic patients have led to greatly improved maternal and fetal prognosis. In the individual patient, however, many problems remain unsolved, and the average fetal mortality still remains about 25 per cent.

Material

From July, 1951, through June, 1960, 50,815 patients were delivered at the Crawford W. Long Memorial Hospital of Emory University. Seventy-nine of these pregnancies

were complicated by diabetes, giving an over-all incidence of 1 in 643. The prenatal courses and deliveries of these patients were managed by a large number of attending and house physicians. The study, therefore, presents no single method of management, but reflects what can be attained by the average physician in hospital practice.

Seventy-two diabetic patients were studied during 79 diabetic pregnancies. Five patients were managed through more than one pregnancy. Twenty-six pregnancies were in primigravidas, while 53 were in multiparas. The oldest patient was 42; the youngest, 16; 83.5 per cent were between the ages of 20 and 39. One maternal death occurred in a patient admitted, undiagnosed, in diabetic acidosis with a dead baby. There were 12 fetal deaths, 8 intrauterine and 4 neonatal, with an over-all fetal mortality of 15.2 per cent.

The Severity of Diabetes As Related to Maternal and Fetal Risk

The severity of the diabetes has a direct effect upon fetal and maternal outcome.

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Table 1
Classification of Fetal Deaths
by White's Method

Class	No. Pregnancies	Fetal Loss		
		Intrauterine	Neonatal	Per Cent
A	17	1	0	5.9
B	31	3	2	16.1
C	18	3	0	16.6
D	13	1	2	23.0

Perhaps the most universally accepted method of evaluating severity is that of White¹, based upon the age of onset, the duration of disease, or the presence of vascular complications. A more recent classification based on fetal risk has been proposed by Pedowitz and Shelvin². These authors have pointed out that fetal survival is compromised by the presence of pelvic vascular sclerosis or renal disease, regardless of the age of onset or duration of diabetes, or the insulin requirement. Maternal risk is increased, they believe, in the presence of coronary disease or retinopathy. They therefore classify cases simply as "unfavorable" or "favorable," depending upon the presence or absence of these maternal or fetal hazards.

In an attempt to relate fetal outcome to diabetic severity, patients were classified according to the methods of White and Pedowitz-Shelvin. Table 1, demonstrating White's classification, shows a definite correlation between fetal loss and severity of diabetes. The only fetal death in a White class A diabetic patient (no insulin required) was the intrauterine death of a fetus weighing 4500 Gm. in a patient awaiting cesarean section at 38 weeks of pregnancy.

Table 2 summarizes fetal loss by the Pe-

dowitz-Shelvin classification. Only 6.1 per cent of the babies were lost in cases classified as favorable, while 57.2 per cent were lost in cases classified as unfavorable. No patient had a history of coronary disease, but 4 were noted to have diabetic retinopathy and were therefore classified as unfavorable from the maternal standpoint. It should be noted, however, that in 32 patients a fundoscopic examination was not performed. If this examination had been done more regularly, perhaps more patients would have fallen into the "unfavorable" category. The infant lost in the "unfavorable-maternal" group weighed 1434 Gm., and was delivered by primary cesarean section at 32 weeks because of recurrent ketosis and rapid development of severe toxemia. Seven fetal deaths occurred in 10 patients who evidenced proteinuria prior to the sixth month of gestation, and who were therefore classified as unfavorable from the fetal standpoint.

*The Relation of Complications to
Maternal and Fetal Risk*

Three complications are of outstanding frequency and significance in pregnant diabetic patients. These are toxemia, ketosis, and polyhydramnios. In nearly all cases of

Table 2
Classification of
Fetal Deaths by Pedowitz-Shelvin Method

	No. Pregnancies	Fetal Loss		
		Intrauterine	Neonatal	Per Cent
Favorable	65	3	1	6.1
Unfavorable	14	5	3	57.2
Fetal	10	5	2	70.0
Maternal	4	0	1	25.0

Table 3
Incidence of Common Complications and Fetal Loss

Complications	Fetal Loss		
	No. Pregnancies	No.	Per Cent
Toxemia	17	3	17.6
Ketosis	7	1	14.3
Polyhydramnios	5	0	0
Toxemia and ketosis	3	2	66.7
Toxemia and polyhydramnios	3	2	66.7
Ketosis and polyhydramnios	1	0	0
Toxemia, ketosis and polyhydramnios	4	2	50.0
None	39	2	5.1
Total	79	12	15.2

fetal or maternal mortality (exclusive of "unavoidable" obstetric accidents), one or more of these conditions heralds the obstetric loss.

The incidence of the common complications is summarized in table 3. Forty of the 79 patients (51 per cent) had one or more of the three complications, and in these 40 the fetal mortality was 25 per cent. In 15 patients with ketosis, 5 babies were lost (33.3 per cent); in 27 patients with toxemia 9 babies were lost (33.3 per cent); and in 13 patients with polyhydramnios 4 babies were lost (30.8 per cent). In the patients with polyhydramnios there was but one fetal abnormality, a mongoloid infant with congenital abnormalities.

Eleven patients demonstrated two or more of the common complications. Table 4 shows that in this group 6 babies (54.5 per cent) were lost. It must be noted that 4 of the 6 fetal deaths occurred prior to the decision for delivery, and thus might have been avoided by earlier delivery. The high fetal mortality in the presence of two or more complications should indicate the gravity of this situation and promote serious

consideration of terminating the pregnancy immediately.

Two babies of patients exhibiting no complications were lost. One was the 4500 Gm. infant of a White class A diabetic patient awaiting repeat cesarean section at 38 weeks of gestation. The death was *ante partum*. The other was an 1800 Gm. infant born of a White class B diabetic after the onset of labor at 33 weeks of pregnancy. The death was neonatal.

Time and Method of Delivery

Most investigators agree that diabetic pregnancies should be terminated generally between 36 and 38 weeks by the most effective method. Complications may necessitate even earlier delivery, in spite of the dangers of prematurity. Intrauterine deaths are rare prior to the thirty-sixth week of pregnancy. In the 79 patients reviewed, only 2 such deaths occurred. One was due to abruptio placentae at 28 weeks; the other occurred at 34 weeks in an infant, apparently mongoloid, with congenital abnormalities.

Table 4
Method of Delivery and Fetal Outcome in 11 Patients with Two or More Complications

Method of Delivery	No.	Fetal Loss		
		Intrauterine	Neonatal	Per Cent
Spontaneous vaginal	3	2	1	100.1
Induced vaginal	4	2	0	50.0
Primary cesarean section	3	0	1	33.3
Repeat cesarean section	1	0	0	0

Table 5
Fetal Loss Related to Method of Delivery

Method of Delivery	No.	Fetal Loss		
		Intrauterine	Neonatal	Per Cent
Spontaneous vaginal	36	1	3	19.4
Induced vaginal	15	2	0	13.3
Primary cesarean section	18	0	1	5.6
Repeat cesarean section	10	2	0	20.0

Vaginal delivery

Table 5 shows that 51 patients had vaginal deliveries. In 15 of these labor was induced; one was a primigravida and 14 were multiparas. Three inductions were done after 38 weeks; 8 were done at 36 to 38 weeks, and 4 were done prior to the thirty-sixth week because of complications in 3 patients and intrauterine death in the other. Two intrauterine deaths occurred in the induced-labor group. One infant with multiple congenital defects was delivered by induced labor after death at 34 weeks; the mother had toxemia and polyhydramnios. The other fetus died at 39 weeks in the face of a known maternal history of three previous diabetic stillbirths. No induced labors were prolonged, the longest being 16 hours in a multiparous woman.

Table 5 also indicates that 36 patients went into spontaneous labor and had vaginal deliveries. In 7 of these cases the babies were lost. In 5 of the 7, delivery occurred after the thirty-sixth week; in each of these 5, either ketosis or toxemia was present. The other two infant deaths occurred neonatally after the spontaneous onset of labor and vaginal delivery of a 4138 Gm. baby at 35 weeks in one case, and of an 1800 Gm. baby at 33 weeks in the other. Both mothers had toxemia. Prolonged spontaneous labor of more than 18 hours occurred in 3 cases, and 2 of these babies were lost. Thus patients who were permitted to await the

spontaneous onset of labor in the presence of complications, and patients who labored for more than 18 hours, exhibited a high rate of fetal loss which might have been prevented with earlier delivery by either the abdominal or vaginal route.

Cesarean section

There were 18 primary cesarean sections and 10 repeat sections, giving a rate of 35.5 per cent. Repeat cesarean sections were done on 2 patients with stillbirths. One baby died because of abruptio placentae at 6 months, and the other, weighing 4500 Gm., died while awaiting repeat cesarean section at 38 weeks. The only baby lost neonatally after cesarean section was a 1434 Gm. infant delivered at 32 weeks because of the development of severe toxemia. If the two stillbirths be excluded, the perinatal mortality rate for cesarean section is 3.7 per cent.

Outcome of First Diabetic Pregnancy

Fifteen of the cases studies were diagnosed during the current pregnancy. In 13 of these, the diagnosis was made prior to the onset of labor and the patients' medical problems were well controlled. Only one infant (neonatal) death occurred in this group—a 4100 Gm. baby which was born after the spontaneous onset of labor at 35 weeks in a patient with severe toxemia. In 2 patients the diagnosis of diabetes was made during labor. Both were admitted in

Table 6
Outcome in Primigravidas

Method of Delivery	No.	Fetal Loss		
		Intrauterine	Neonatal	Per Cent
Cesarean section	11	0	0	0
Spontaneous vaginal	12	1	1	16.7
Induced vaginal	3	0	0	0

Table 7
Management of First Diabetic Pregnancy

Method of Delivery	No.	Fetal Loss		
		Intrauterine	Neonatal	Per Cent
Cesarean section	11	0	0	0
Spontaneous vaginal	26	2	3	19.2
Induced vaginal	5	0	0	0

acidosis. Both babies were stillborn. One of the mothers died *post partum* while the diabetes was being controlled.

In table 6 it can be seen that in 14 primigravidas managed by planned early delivery (either abdominal or vaginal), no infant deaths occurred. In 12 primigravidas who went into spontaneous labor, the fetal mortality was 16.7 per cent.

Table 7 indicates that in 45 patients being managed through their first diabetic pregnancies, all infant deaths occurred in cases of spontaneous labor and vaginal delivery.

Previous Pregnancies

The outcome of former pregnancies in the 53 multiparas during the five years before the diagnosis of diabetes was made and during a period of up to 15 years since the diagnosis is shown in table 8. Before diabetes was diagnosed in this group, 14.7 per cent of pregnancies ended in abortion and 10.9 per cent of viable babies were lost. During previous diabetic pregnancies, 22.4 per cent ended in abortion and 17.8 per cent of viable babies were lost.

Discussion

The hormonal diabetogenic influences at work during normal pregnancy amplify the metabolic aberrations present in borderline as well as overt diabetes. Thus, a satisfactory outcome for mother and fetus demands careful medical management of pregnancy in all known diabetic patients as well as immediate diagnosis and treatment of suspected cases.

The above observations indicate that fetal death can best be prevented by either abdominal or vaginal delivery at 36 to 38 weeks, or earlier if complications are present. The determination of the best route of delivery in an individual patient requires

sound judgment after consideration of all factors. Planned early delivery can of course lead to problems of prematurity even in large infants, so that even with apparently optimal management, fetal loss can occur. The helpful Pedowitz-Shelvin classification of patients as "unfavorable" or "favorable" has proved another useful management guide, since in this study 70 per cent of infants were lost in the "unfavorable" group.

In the majority of problem cases in this series, abdominal delivery was utilized. There was but one neonatal death in the cases thus managed; the mother was in the "unfavorable" category and was delivered of a 1434 Gm. infant by cesarean section because of the development of ketosis and severe toxemia at 32 weeks. Two intrauterine fetal deaths occurred in the cesarean sectioned group. One was due to abruptio placentae at six months, while the other was in a patient awaiting repeat abdominal delivery.

On the other hand, there were no neonatal deaths when labor was induced; and the only 2 intrauterine deaths occurred prior to induction. In the presence of antepartum fetal death where termination of pregnancy is indicated, the obvious course in most cases is induction of labor, in the absence of polyhydramnios or previous cesarean section.

In problem cases, either cesarean section or induction of labor can offer good fetal survival if cases are properly selected, medical management is sound, and obstetric intervention is carried out at the proper time. Certainly in such problem cases in most primigravidas, and in many multiparas in whom long labors are foreseen, abdominal delivery is a safe course of action. Delivery from below in selected cases also appears safe from a fetal standpoint if a short labor can be predicted.

Table 8
Outcome of Previous Pregnancies in 53 Multiparas

	Total Pregnancies	Fetal Loss			
		Intrauterine	Neonatal	Abortion	Per Cent
Before diabetes	81	6	2	12	24.7
After diabetes	58	5	3	13	36.2

Summary

Seventy-nine pregnancies in diabetic patients have been reviewed. The fetal outcome has been studied relative to the severity of diabetes, the presence of complications, and the method and time of delivery. The over-all fetal mortality was 15.2 per cent.

The Pedowitz-Shelvin classification was found to be useful in management and in predicting fetal outcome. In cases classified as unfavorable by this method, fetal mortality was 57.2 per cent.

The presence of two or more of the common complications (toxemia, ketosis, and

polyhydramnios) was found to be associated with a fetal loss of 54.5 per cent. The presence of any of the complications increased fetal loss in all categories.

Cesarean sections were done in 35.5 per cent of the cases. Optimal fetal outcome was obtained with planned early delivery at 36 to 38 weeks by either the abdominal or vaginal route.

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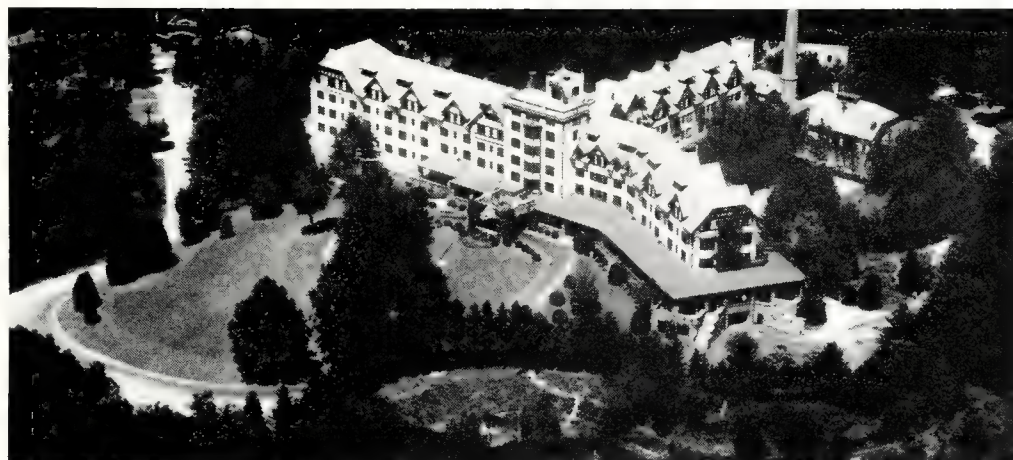
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Infusion of Saccharated Iron Oxide in the Treatment of Iron Deficiency Anemia

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The oral administration of iron salts is generally accepted as the treatment of choice for iron deficiency anemia. Parenteral iron therapy is useful in the treatment of specialized problems such as intolerance to oral iron, malabsorption of iron, and situations wherein rapid replacement of iron stores is desirable. This paper describes a simple method for administering parenteral iron therapy by slow intravenous infusion of saccharated iron oxide.

Methods

Nineteen patients received 52 infusions of saccharated iron oxide*. Most patients were hospitalized for other reasons, but 3 patients were treated in the Hematology Clinic on an outpatient basis. The average infusion contained 370 mg. of iron and was administered over six to eight hours. Care was taken to prevent more rapid administration, and vital signs were observed during the infusions. The average total amount of iron given was 1000 mg. per patient, and one patient received a total of 2500 mg.

Iron deficiency anemia was diagnosed as a microcytic, hypochromic anemia, with absence of stainable iron in sternal marrow aspirates¹. Blood counts were determined by conventional methods.

Results

The results of intravenous iron oxide infusions are summarized in table 1. One patient (case 4) experienced flushing and abdominal cramps with each treatment, which subsided spontaneously on slowing or discontinuing the infusion. She had previously

experienced similar reactions with intramuscular injections of iron dextran, rapid intravenous administration of saccharated iron, and blood transfusions. Nausea occurred in 1 patient, slight substernal burning in 1, and 2 patients noted mild venous irritation at the infusion site. No hypotension was noted and no serious reactions occurred.

Satisfactory response of blood counts occurred in 17 of 18 patients available for follow-up evaluation. A typical hematologic response is shown in figure 1. Patient 12, with iron deficiency and generalized sarcoidosis, had a suboptimal response. Post-treatment bone marrow aspirations were performed in approximately half of the cases. Patient 18 demonstrated a "trace" of stainable marrow hemosiderin after receiving 100 mg. of iron and "abundant" iron after 200 mg. had been infused. The other patients were re-examined after 300 mg. or more had been given, and all had abundant hemosiderin.

Discussion

Toxic reactions to single dose intravenous injectable iron preparations have been reported². The incidence of reactions to rapidly administered intravenous saccharated iron oxide varies from 5-35 per cent³, and the types of reaction include hypotension, flushing, and abdominal and lumbar cramps. In this series of 19 patients treated with a slow infusion of saccharated iron oxide, 1 patient experienced classic symptoms of iron toxicity. It is interesting to note that this patient had had similar reactions with all other forms of parenteral iron therapy, and that her symptoms rapidly subsided when the infusion was discontinued. This

From the Hematology Laboratory, Department of Medicine, Duke University Medical Center.

Proferrin—Merck, Sharpe & Dohme.

Case Summaries of Patients Receiving Intravenous Infusions of Saccharated Iron Oxide

Case No.	Age	Sex	Reason for Anemia	Pre-Treatment Counts			Saccharated Iron Oxide		Prompt Symptomatic Improvement	Side Effects
				Hgb.	Hct.	Retics.	Total Dose mg. (Fe)	Days of Administration		
1.	61	M	Gastrectomy	9.9	38	1.2	1150	3	Yes	Local inflammation
2.	24	F	History of menorrhagia; pregnancy	8.2	27	1.8	800	2	Yes	None
3.	28	F	Pregnancy	7.7	28.5	1.7	1600	4	?	None
4.	36	F	Chronic rectal bleeding	6.6	25	2.1	350	3	Yes	Flush, abdominal cramps
5.	64	F	Ca. of the colon and C.L.L. (remission)	8.8	28.5	1.6	800	2	?	None
6.	34	F	Menorrhagia	5.5	24.5	2.4	900	1½	Yes	None
7.	27	F	Menorrhagia	8.9	32.5	6.6 (after oral iron)	400	1	No	None
8.	62	M	Gastrointestinal bleeding	8.1	30.5	2.0	1500	5	?	None
9.	22	F	History of menorrhagia; pregnancy	7.0	25	---	1200	3	?	None
10.	59	M	Gastrointestinal bleeding	8.6	30	0.8	300	1	Yes	None
11.	15	F	Dietary deficiency plus menstrual loss	9.7	33	1.6	1400	1½	Yes	None
12.	28	F	Sarcoidosis, bleeding, no B. M. iron on 2 occasions. Thought hemolytic plus iron deficiency.	8.7	31	2.5	1000	5	?	Mild burning under sternum with first infusion.
13.	15	M	Hodgkin's disease; gastrointestinal bleeding	9.9	31.0	---	400	1	?	None
14.	46	M	Occult gastrointestinal bleeding	10.2	37.5	---	1000	3	No	Slight venous irritation
15.	31	F	Menorrhagia	9.3	35.0	2.1	900	2	Yes	Nausea after first infusion
16.	29	F	Multiple pregnancies	6.9	19.5	---	1200	3	Yes	None
17.	35	M	Sprue	4.6	22.0	7.1	2500	5	?	None
18.	21	F	Pregnancy	10.4	32.5	5.4	800	2	No	None
19.	56	M	Gastrointestinal bleeding	2.7	12.0	2.9	1200	4	Yes	None

HEMATOLOGIC RESPONSE TO INTRAVENOUS SACCHARATED IRON OXIDE

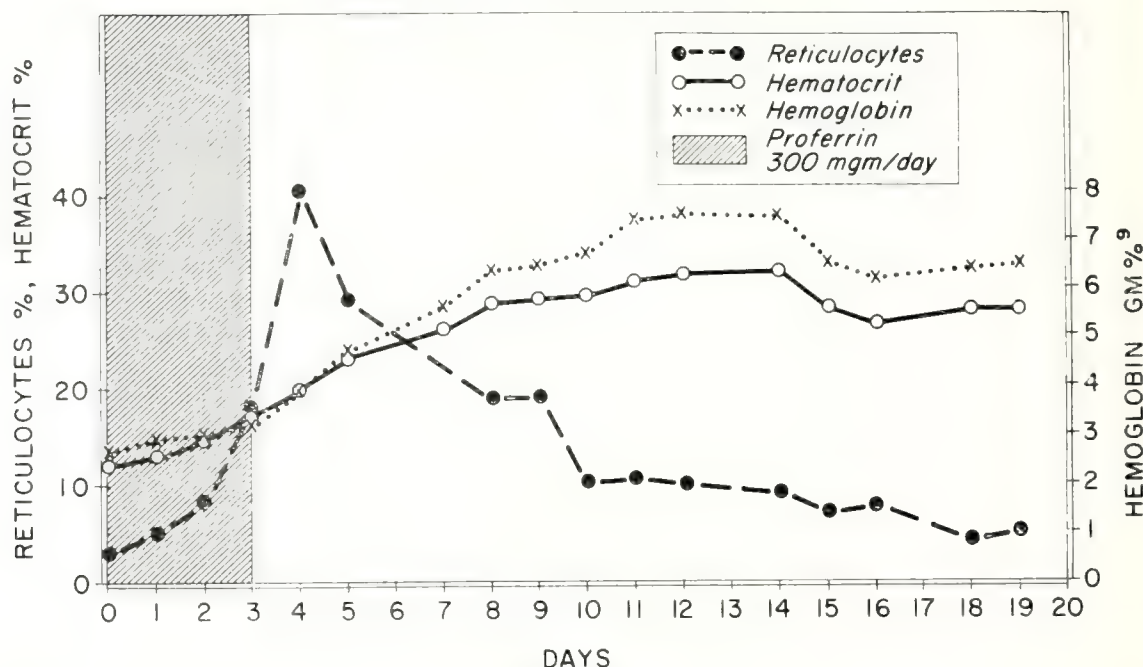


Figure 1 (Case 19)

The patient is a 56 year old colored man who was known to have intermittent and occult gastrointestinal bleeding for four years prior to a subtotal gastric resection in 1959 for a duodenal ulcer. Recurrent occult bleeding necessitated hospitalization. No lesion was demonstrable by x-ray, but he was thought to have a recurrent stomal ulcer. Conservative therapy was instituted, as the patient refused further surgery. Hemoglobin and hematocrit on 4-3-6 were 9.9 and 34 respectively.

was the best tolerated form of parenteral iron therapy for her. Toxicity from parenteral iron seems related to the dose of iron salts, the type of preparation used, and the speed of administration⁴. Careful control of the rate of continuous infusions offers an important advantage in minimizing reactions.

The rapid symptomatic improvement following the intravenous infusion of iron is of interest. This could be due either to a placebo effect or to replenishment of iron-containing enzymes similar to that reported by Beutler and others⁵.

It is noteworthy that the ferricyanide method of staining bone marrow hemosiderin was capable of detecting the presence of as little as 100 mg. of infused iron. This would lend support to the observation that stainable marrow hemosiderin is absent only in patients severely depleted of iron stores.

There are no standard indications for parenteral iron therapy. Failure of the patient to take oral iron, physiologic intolerance to oral iron, malabsorption disorders, iron deficiency discovered late in pregnancy, and other situations in which rapid replacement of iron stores is desirable—all might serve as indications for parenteral iron.

At present there is no fully satisfactory parenteral iron preparation available on the market. We consider courses of 300-400 mg. of iron (saccharated iron oxide) slowly infused over an eight hour period to be an optimal method of administration. The current study suggests that slow continuous intravenous infusion of saccharated iron oxide can be an effective and reasonably safe approach to parenteral iron therapy.

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Addendum

Since this paper has submitted for publication, a useful intramuscular iron-dextran preparation (Imferon) has reappeared on the market.

Carcinoma of the Prostate — An Unusual Ten-Year Cure

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and

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CONCORD

Case Report

First admission

A 59 year old farmer was first seen in January, 1951, complaining of backache and difficulty in voiding. The physical examination was unremarkable except for 200 cc. of residual urine and a stony, hard, nodular prostate, with extension of the same palpable consistency throughout both seminal vesicles. Laboratory and x-ray studies, including a serum acid phosphatase determination, were within normal limits. A search for remote metastasis was negative. The preoperative diagnosis was carcinoma of the prostate, which at that time was considered too advanced for treatment by radical removal.

On January 4, 1951, a transurethral prostatic resection was done, removing 12 Gm. of tissue. The pathologic diagnosis was adenocarcinoma of the prostate (Dr. C. C. Carpenter, Bowman Gray School of Medicine) (fig. 1). The postoperative course was uneventful. The patient was started on 5 mg. of diethylstilbestrol daily and was dismissed from the hospital on January 10, 1951, capable of voiding a good urinary stream with good control.

Convalescence was uneventful. Under estrogenic therapy the prostate regressed in size, and three months later its consistency was normal; however, though some regression occurred in the seminal vesicles, they remained indurated and were typical of carcinoma.

The patient was seen at intervals of six months. He resumed prescribed diethylstilbestrol, and his only complaint was discomfort due to gynecomastia.

Second admission

On January 12, 1952, a hard nodule, 1½ cm. in diameter, was palpated in the right prostatic lobe, and a smaller one in the left. There were no symptoms of obstruction and no encroachment on the prostatic urethra was seen on endoscopic examination. Orchiectomy, which had previously been recommended and refused, was now accepted and was performed without incident. Postoperatively the prostatic nodule disappeared, but the seminal vesicles remained unchanged.

Over the next several years the patient's health remained good; he continued to work, and had no urinary or skeletal symptoms. On a routine follow-up examination on December 5, 1959, a hard nodule was found in the right lobe of the prostate, in the same location as the one found in 1952.

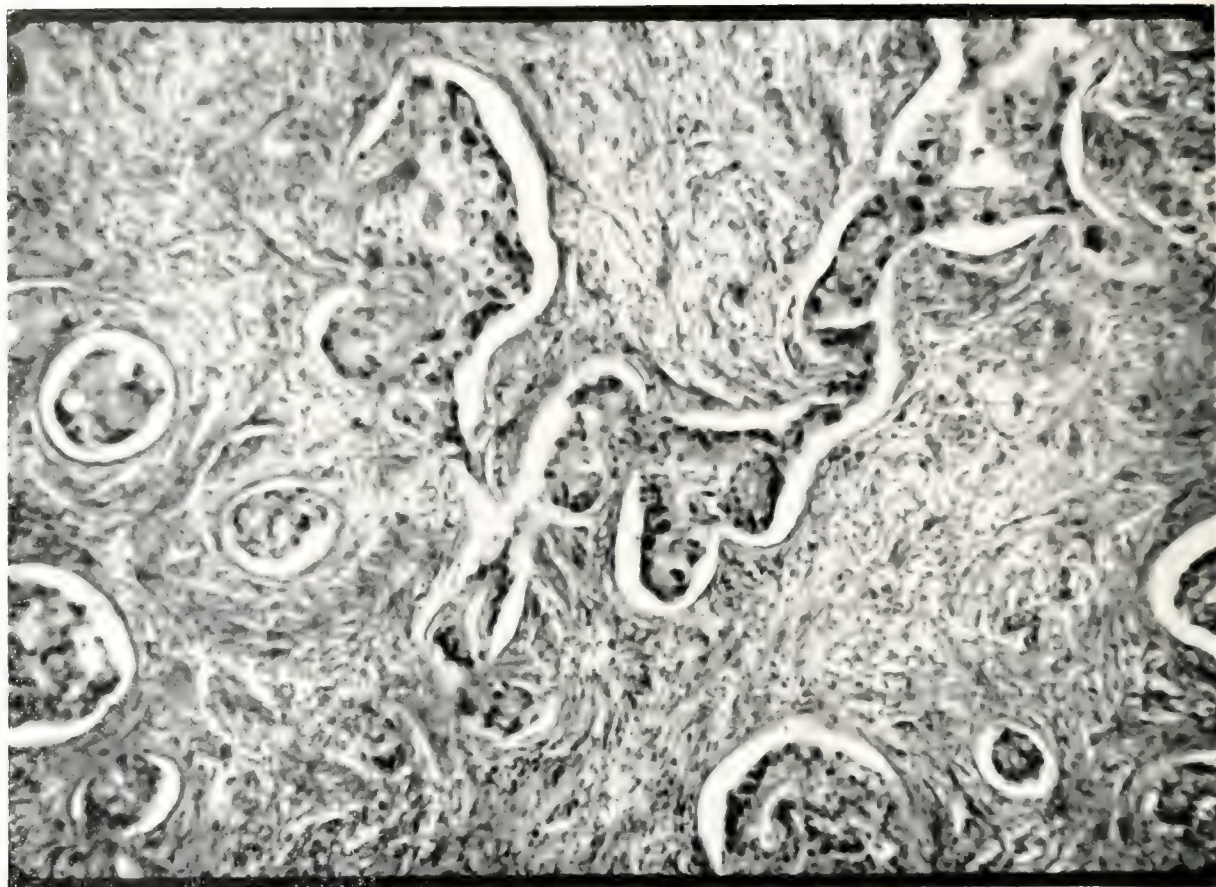


Fig. 1. Photomicrogram showing carcinoma of the prostate from TUR specimen in 1951.

The remainder of the gland felt more indurated than was normal, but an exacerbation of carcinoma was suspected only because of the previous diagnosis. For the first time in more than 20 recorded examinations, the seminal vesicles were soft and atrophic, without evidence of metastasis. Endoscopic examination revealed no extension of the carcinoma into the bladder.

Third admission

On January 12, 1960, almost nine years after the diagnosis of carcinoma was first made, the patient was again admitted to the hospital. The general physical examination was normal. All pertinent laboratory values were within normal limits. The serum acid phosphatase was 0.4 Bodansky units. A thorough x-ray survey for metastasis was negative.

On January 18, 1960, a radical perineal prostatectomy was performed. No extension of carcinoma beyond the prostate was pal-

pable. Extensive examination by the pathologist showed adenocarcinoma of the seminal vesicles.

Urinary drainage was clear on the first postoperative day. Convalescence was uneventful until the eighth day, when thrombophlebitis developed in the right leg. Anticoagulant and related therapy was begun. The urethral catheter was removed on the fourteenth postoperative day, and the patient was discharged home on February 9, 1960.

When seen on February 18, 1960, he had a small incisional abscess in the perineum, some residual edema of the right leg, and fair urinary control. When last examined on November 26, 1960, his urine was negative, urinary control was excellent, the urethra had no stricture, and rectal examination disclosed no evidence of recurrence.

Comment

Every urologist of long experience has

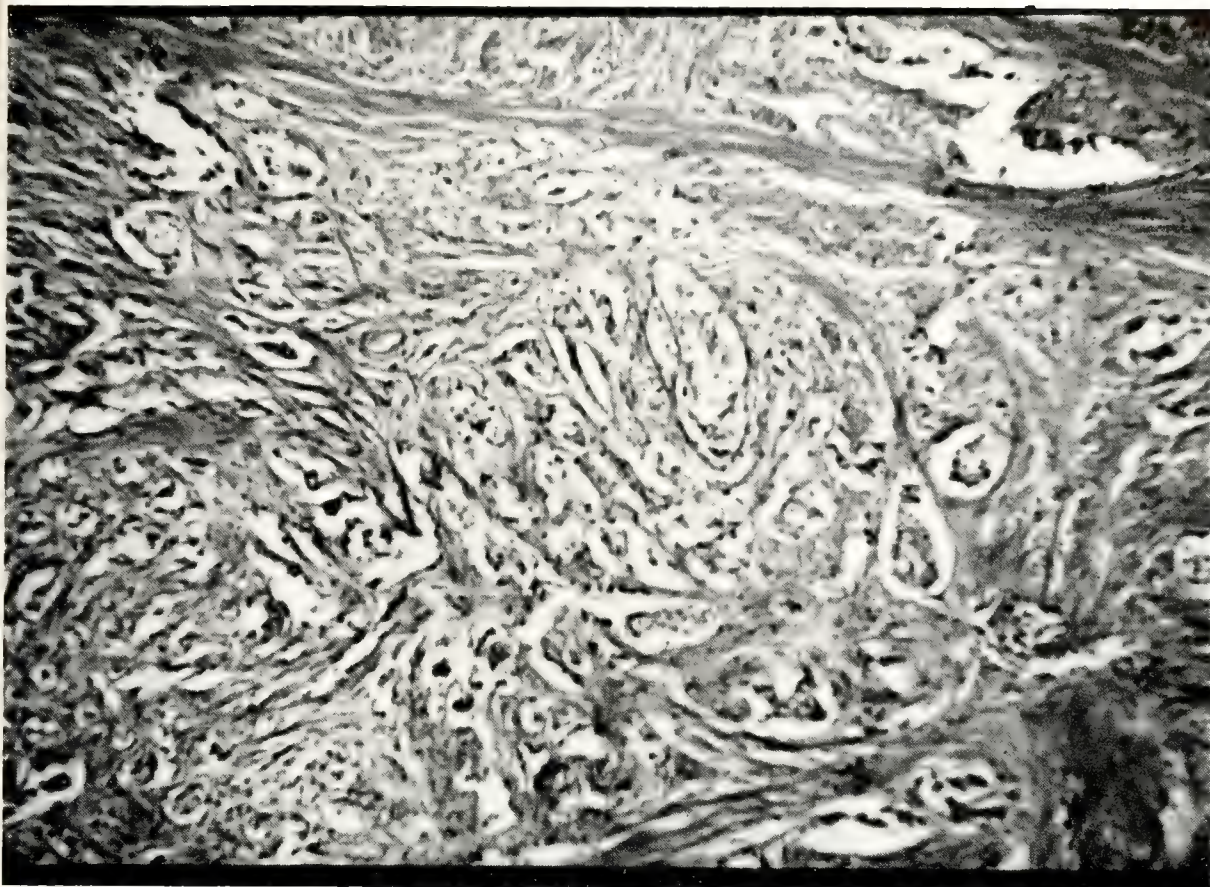


Fig. 2. Section of the prostate removed at radical perineal prostatectomy in 1960, showing carcinoma of the prostate with metaplasia and invasion of the perineal lymphatics.

patients who have lived 10, 15, or even more years after the diagnosis of carcinoma of the prostate was made. In many of these patients, the disease has shown little or no progression. Yet the average length of survival for this condition is less than two years after diagnosis.

Certainly every physician is aware of the great variability in individual biologic response to malignancy. In general, young people succumb quickly, while many elderly patients with inoperable cancer live comfortably for long periods.

In the case presented here, the patient had a high resistance to adenocarcinoma of the prostate, a high sensitivity to estrogen therapy, or both. He may have been surgically curable when first seen. The "malignant extension" in the seminal vesicles may have been inflammatory all the time.

A number of authors¹ have reported rendering inoperable cancer of the prostate op-

erable by orchiectomy and estrogen therapy, but we have found no case in which the time interval between diagnosis and radical prostatectomy was as long as in the present case.

With the widespread dissemination of fragmentary information about cancer by the lay press and lay organizations, the average patient has a pathologic fear of the disease and easily becomes a victim of mass hysteria. Nowadays, most physicians give their patient the diagnosis and add in the same breath, "There is no evidence of cancer," in anticipation of the inevitable question. Whereas in some cases of malignancy the diagnosis can and should be withheld from the patient, a man with carcinoma of the prostate almost invariably knows the nature of his disease.

Orchiectomy is a necessary part of the treatment of these lesions when they are beyond radical surgical treatment. No man

has ever consented to orchiectomy and estrogen therapy with the associated loss of sexual potency without good reason. The hopelessness and despair which pervades most men when they are told they have cancer of the prostate may be brightened in some patients by citing the present case.

Summary

A case of adenocarcinoma of the prostate has been presented, demonstrating successful treatment by radical surgery nine years after the diagnosis was made.

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Why Can't Johnny Talk?

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Developmental norms for preschool-age children provide a useful measuring stick for the pediatrician in examination of his young patients and discussion with parents. The physician's own clinical experience and evaluation of individual differences enable him to use such norms flexibly and wisely. Within the normal range there are many variations; each child has his own developmental pattern, within which spurts and lags in particular areas are normal and to be expected. The milestones of walking and talking are often regarded as crucial in healthy maturation and are sometimes of foremost concern to parents. Their eagerness to see their child progress well in comparison with other children may lead them to press for achievements, or to become overconcerned about the child's general condition. The counsel

of the pediatrician may be the best "prescription" to relieve the parent's anxiety and give assurance about normal growth processes.

At what age should a child be expected to begin to articulate sounds, use single words, make short sentences, enlarge his vocabulary, express ideas and feelings, and converse? When is a marked lag in speech development significant? Is lack of speech related to hearing deficit, or to mental retardation, or to poor methods of child care? Does the mother meet all the child's needs without expecting verbal communication from him? Does the family's pressure facilitate or hamper the development of speech? These are some of the many variables to be considered in evaluating speech development.

A recent study³ of psychiatric diagnostic evaluations of pre-school children, in the Child Unit of the Department of Psychiatry, University of North Carolina School of Medicine, provides some significant data about "non-talkers" referred by local physicians or other sources for further study.

During four and one half years of operation the Child Psychiatry Clinic evaluated

Based on a study made in the Department of Psychiatry, University of North Carolina School of Medicine, Chapel Hill, and read before the American Association of Psychiatric Clinics for Children, Chicago, Illinois, February 24, 1960.

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Table 1
Age and Sex Distribution of 53 Preschool-Age Children
According to Type of Psychiatric Diagnosis

Age Years	Sex	Normal	Moderately Disturbed	Severely Disturbed		
				Psychotic	Retarded	Deferred
Under 2	M 0	0	0			
	F 1	1	0			
2	M 1	0	1			
	F 1	0	1			
3	M 11	2	4	1	1	3
	F 5	0	5			
4	M 8	0	2	3	1	2
	F 5	0	4		1	
5	M 13	1	3	1	4	4
	F 8	1	2	3	1	1
Total	M 33	3	10	5	6	9
	F 20	2	12	3	2	1
Grand Total	53	5	22	8	8	10

53 preschool children, about 8 per cent of a total of 675 evaluations of children and adolescents ranging up to 17 years of age. These children came from 37 different communities in the state.

The sources of referral were as follows: 7 were referred by their parents directly; 30 by local physicians—8 directly to the Child Psychiatry Clinic and 22 via the Pediatric Clinic of our hospital; 9 by social agencies, and 8 by other sources such as nursery school teachers, ministers, and public health nurses.

Kinds of Problems

In reviewing these 53 cases, we found that they fell into five groups or categories (table 1).

1. *Normal range.* Five of these children were evaluated as being "within the normal range" developmentally and behaviorally, "without psychiatric problems at this time." They included an infant evaluated for adoption, a 3-year-old evaluated for comparison with his twin brother, one child with a minimal speech impairment, one child whom the mother considered "too shy," and one child with situational anxiety.

2. *Mildly to moderately disturbed.* A sec-

ond group of 22 children presented mild to moderately severe emotional disturbances. These children had various neurotic symptoms of behavioral or developmental problems of a kind for which psychotherapy on an outpatient basis was recommended; the impairment was considered mild to moderate, and the prognosis fairly good with psychiatric treatment; the parents indicated motivation and capacity for accepting help with problems of parent-child relationship. These are the usual "child guidance clinic" cases.

The remaining three groups presented more complicated problems of differential diagnosis:

3. *Mentally retarded.* Eight children were diagnosed as severely retarded mentally. These children had in addition moderate to severe behavioral and emotional problems, but the major disability was determined to be mental retardation of such marked degree that psychotherapy was not feasible and future institutionalization the only likely community resource for care and training.

4. *Psychotic.* The next group, of 8 cases, consisted of children diagnosed as psychotic—either schizophrenic, autistic, or undifferentiated.

5. *Deferred diagnosis.* The last group consisted of 10 cases in which diagnoses were deferred pending further studies.

Why These Children Were Referred to the Center

A review of the presenting problems, while it does not begin to describe what these children were like, reveals some interesting facts. The leading problem—in fact, the primary presenting problem in all but one of the children with severe impairment—was *failure to develop speech*, variously described as “cannot or will not talk at all,” “utters only indistinguishable jargon,” or “uses at the most a very few words.” Among the group with moderately severe problems, 9 out of 22 children had also been referred because of “lack of speech.” The problem of differential diagnosis is, of course, enormously complicated by the lack of speech for communication.

The second most common problem was behavioral difficulties, ranging from mild to severe and often including temper tantrums. Frequently parents related these problems to lack of speech, saying that they felt the child became frustrated and enraged because his wants were not understood or he could not understand explanations.

Other problems mentioned in various cases were questions about intellectual functioning; physical symptoms such as convulsions and vomiting; hyperactivity; inability to relate to others, or shyness and withdrawn behavior; marked fears and phobias. Poor developmental features such as inability to feed or dress himself or achieve toilet training were originally reported in only a few cases, but were revealed in many more instances in our diagnostic studies.

In nearly all cases of severe disturbance, the parents had made varied and repeated efforts to find out “what was the matter” and what could be done to help the child develop normally. Many had taken the child to several physicians or to clinics and hospitals in other communities. Some had sought the services of a chiropractor or faith healer. Many parents expressed bewilderment, resentment, and inability to accept

medical opinion. They clung to the hope that the child would “outgrow” the problem or would improve with some new medicine; or they vacillated between being more strict and more permissive with him. A few had been unconcerned about the lack of speech development until the question of school attendance became imminent. Psychiatric social-work interviews with the parents revealed that many were extremely troubled, anxious, apprehensive, and resistant to the possibility of mental deficiency or mental illness. Thus two factors—the complexity of differential diagnosis in young children who are physically well or free of disease but who do not talk or develop normally in other ways, and the complexity of parental feelings and attitudes about their severely disturbed children—constitute problems for both the local physician and the clinic.

What Are Diagnostic Evaluations in Child Psychiatry?

Child psychiatric services at North Carolina Memorial Hospital, like those elsewhere, utilize a multidimensional approach. The varied resources of the hospital's clinics and laboratories are combined with the special services of the orthopsychiatric team of child psychiatrist, psychologist, and psychiatric social worker.

A thorough pediatric examination is basic to the psychiatric evaluation. Detailed reports from the local physician or hospital are of great value in studying the child's developmental and medical history and in planning further studies. For patients who have not had a recent medical examination or who indicate the need for special studies, appointments are made with the pediatric, neurology, speech, and hearing clinics of the hospital. Such studies may not only uncover or rule out organic deficiencies and diseases and indicate further medical care, but they also contribute supplementary data and observations on the child's behavior in the hospital situation.

For all but 3 of the 53 children included in this study, current medical examinations were made in this hospital. In the case of severely retarded or emotionally disturbed

children, medical studies are often difficult to complete satisfactorily and the results may be inconclusive. For example, it may be impossible to give either the usual hearing test or the psychogalvanic skin response test, since the severely disturbed child is usually unable to cooperate. Similarly, the results of the general neurologic examination and the electroencephalogram may be equivocal. Thus it is often the medical "enigmas" which are referred to child psychiatry clinics.

An individual diagnostic conference is held regarding each child studied in the Child Psychiatry Clinic. Appointments for a complete outpatient study, in some cases extending over a period of several weeks, or an inpatient study are arranged. All available medical reports are reviewed and incorporated in the total evaluation. Observations by the nursery school teacher or child welfare worker with whom the child has had contact are reported. The psychiatrist and psychologist contribute their observation, and the psychiatric social worker summarizes the social information about the child and the family from interviews with the parents.

Most of the severely disturbed children could not be given formal psychologic tests nor interviewed by the psychiatrist, because of both their language deficit and their unrelatedness and inability to follow directions. Detailed observational data from a psychiatrist and a psychologist with special training and experience in child psychiatry, however, provides a basis for evaluation. This data is analyzed for clues to organic disease or deficit, present and potential intellectual function, attention span, extent and quality of participation in play and testing, activities, motivation, relatedness to the examiner, symptoms, and other indications of emotional disturbance. From these varied sources of information, the orthopsychiatric team outlines and assesses the child's developmental history in medical and psychiatric terms.

The psychiatric diagnosis is based on the evaluation of:

1. A complete history of successive developmental phases, including the child's

reaction to parental care, such as weaning and toilet training; the development of speech; the control of impulses; the growth of independence and self-help; fears, temper, nervous habits or symptoms; and specific events such as illness, hospitalization, separation from parents, presence of siblings, and the like.

2. The child's current behavior, activities, characteristics, relationships with members of the family and others, and his reactions to new experiences such as coming to the clinic.

3. The socioeconomic setting and emotional climate of the child's home, and the personalities of the parents, especially their feelings about the child, their methods of child care, and their capacities for cooperating with recommendations.

Recommendations Resulting from Diagnostic Studies

In interviews with the family during and after diagnostic studies, efforts are made to help the parents with their mixed feelings of grief, anxiety, and defensiveness about the child, and to enable them to understand and cooperate with the psychiatric recommendations. Referrals are made to community agencies wherever feasible, and reports are sent to such agencies and to family physicians whose services may be utilized on the child's behalf.

Recommendations made to families of the 53 preschool children evaluated in the Child Psychiatry Clinic included the following:

Of the 5 children considered to be within the normal range developmentally and behaviorally, our interpretive conference with the parents included a reassuring discussion of the child's normal development, and suggestions for handling problems. In 2 cases, the mothers themselves were referred for counseling; in 1, the referring social agency was given consultation regarding adoption plans, and in 1 instance speech therapy was recommended.

For the 22 children with mild to moderately severe emotional problems, psychotherapy for the child with concomitant treatment for the parents was recommended. In 11 cases this recommendation was

accepted and treatment begun at this clinic; 3 were referred to their local mental health clinics; 4 to other community resources; and in 4 cases the parents refused the offer of therapy.

For the severely disturbed groups the following plans were made:

Of the 8 psychotic children, 5 were referred to the Residential Treatment Center at Butner State Hospital; 1 was taken to a local psychiatrist as a private patient; 1 was referred back to the local agency since no specialized facilities were available; and 1 family moved nearby to obtain therapy.

Of the 8 retarded children, 3 were given a trial of medication, 3 were referred to local agencies, and 2 were given a trial of psychotherapy. Of the 10 deferred cases, impatient study was advised in 4, but facilities were not available; 2 were referred to local mental health clinics for a trial of treatment; in 2 cases further outpatient studies were advised but refused by parents; and in 2 cases further outpatient studies were advised and are now in process. The number of deferred cases underscores the difficulties in arriving at definitive diagnoses.

Teaching and Research Functions of the Child Psychiatry Unit

In addition to services to individual patients and collaboration with other profes-

sional groups, the Child Psychiatry Unit participates in the training and research program of the Department of Psychiatry of the School of Medicine. Its staff members and graduates have been actively interested in the development of psychiatric services in state hospitals and institutions and community clinics, and in associations such as those for the parents and friends of retarded children and mentally ill children. Our clinic experience with these young children contributes stimulus and information to mental health programs in North Carolina.

Conclusion

At present data are lacking to estimate how many young children in the state are brought to physicians or how many have problems similar to those in our severely disturbed group. Our clinic experience demonstrates that early, multidimensional studies of developmental lags in preschool years, such as failure to talk, often leads to treatment and/or other constructive efforts to reduce emotional conflicts and facilitate ego development, and helps parents plan the future care of severely disturbed children.

This study illustrates the complexities or differential diagnosis of severe emotional disturbance in early childhood, and the need for further research.

As the years have gone on and medicine has become more and more specialized, the old days when the family doctor could, medically speaking, "be all things to all people" have gone. All physicians, whether in general or specialized practice, must recognize their limitations, and for the most part they do. The solution of difficult problems in diagnosis and treatment often requires the application of many special skills. On the whole, the spirit of cooperation which this situation makes necessary has grown, particularly among the younger and better trained doctors who are brought up to understand the need of team work. The old adage, "Two heads are better than one," was never more applicable than it is today, and more often than not it is not two but three or more that are required.—Burgess, A.M.: Editorial: Consultations, *Ann. Int. Med.* 55: 702 (Oct.) 1961.

Congenital Goiter

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and

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Sporadic goiter in the newborn has been reported occasionally in North America. The following case is of interest because (1) the goiter is the largest yet reported in North American literature; (2) the mother had received potassium iodide; (3) the mother had polyhydramnios.

Report of Case

The mother, a 21 year old white woman, first appeared for medical examination on August 27, 1956, because of suspected pregnancy. Onset of her last menstrual period was said to have occurred on June 26. This was her first pregnancy.

Physical examination revealed a somewhat lethargic woman, whose speech was sluggish. Her weight was 129 pounds and the blood pressure 120 systolic, 80 diastolic. Laboratory studies revealed a hemoglobin of 14 Gm. per 100 ml. Urinalysis and a serologic test were negative.

Subsequent examinations at the clinic were essentially uneventful until during the last month of gestation the blood pressure was noted to rise to 160/100 as compared with the initial pressure of 120/80. Additional physical findings were the presence of 2 plus edema and facial puffiness. She had gained 7 pounds during the past four weeks. Her total weight gain since the first visit seven and a half months before was 27 pounds. Routine urinalysis showed 2 plus albuminuria. The patient was subsequently admitted to the hospital on April 10, 1957, with a diagnosis of pre-eclampsia.

The patient was then placed on Diamox and calcium gluconate. After her condition was stabilized, small initial intramuscular doses of Pitocin were administered. She responded with the onset of mild uterine contractions, and shortly thereafter the membranes ruptured spontaneously. Approximately 24 hours later, following a somewhat

irregular labor, cervical dilation was noted to be complete and the fetal head was low. Under saddle block anesthesia delivery was accomplished with the aid of low forceps.

Although delivery was effected with some difficulty, the infant bore no forceps marks. It weighed 8 pounds 3 ounces. The face was edematous, and in the region of the thyroid gland a larger mass was noted, which held the head in an extended position and hindered respiration. The mouth and pharynx were suctioned and a small endotracheal tube was inserted, after which oxygen was administered. Respiratory exchange remained poor, however, and the infant expired one hour and fifteen minutes after delivery. Death was attributed to asphyxia resulting from pressure on the trachea by the enlarged thyroid gland.

Review of the case disclosed that the patient had been asthmatic since the age of 3 years. Since November, 1954, she had been taking Quadrinal tablets, containing 5 grains of potassium iodide, $\frac{1}{2}$ to 1 tablet per day, that had been prescribed by another physician. A protein-bound iodine determination obtained two days *post partum* showed 12 plus mcg. per 100 ml., which is interpreted as a false reading because of the dosage of potassium iodide. On May 11, a month after delivery, the basal metabolic rate was minus 2, the protein-bound iodine was 4.4 mcg. per 100 ml. and her weight was 120 pounds. She appeared more alert, more active, and healthier and happier than she had during the prenatal course.

Pathologic findings

Autopsy performed on the infant disclosed the inferior and superior thyroid veins and the external jugular veins to be enormously enlarged. The mass in the neck, the thyroid gland, was firmly attached to the trachea, partially encircling it. The thyroid

gland was firm and weighed 120 Gm. Two approximately equal lobules were present, each measuring 7 x 5.5 x 4 cm. The outer surface was slightly bosselated and gray. The cut surface was gray with fibrous bands dividing the gland into incomplete lobules. Postmortem examination was limited to the neck.

Microscopically, the gland was extremely vascular, with many distended blood vessels in the surrounding tissue and supporting fibrous stroma. Some of the follicles were oval to round; others were elongated. Many follicles were filled with large cuboidal cells; others were lined by tall simple columnar epithelium. The epithelial cells had vesicular nuclei and abundant pale granular cytoplasm. Colloid was not present.

Comment

Congenital goiter has been observed in infants born of mothers with suspected hypothyroidism or hyperthyroidism, of those who received iodides or thiouracil derivatives, of those who did not receive any

known goiterogenic substance, and of normal mothers.¹ Our patient also had polyhydramnios, as have four other patients that have been reported². In all cases the microscopic pattern was similar to that seen in the present case—that is, a well vascularized gland without colloid and with hyperplastic-appearing acini. This picture has been adequately described by Potter³. The normal weight of a newborn infant's thyroid gland ranges from 1.5 to 3 Gm. Usually colloid is present within the acini.

Summary

A case of congenital goiter is reported. The mother was asthmatic, and had been taking potassium iodide for almost two years before the child's birth. The gland was diffusely enlarged, with a microscopic picture of diffuse hyperplasia. The weight (120 Gm.) was greater than that of any previously reported case. Death was due to asphyxia from pressure of the goiter.

This patient has given birth to a normal infant since discontinuing potassium iodide.

Strictly speaking, a medical consultation takes place whenever two or more physicians talk over the condition of a patient. Consultation, although unrecorded, is an important part of medical work which may often give to the physician who is dealing with a difficult clinical problem just the suggestion that he needs to start him on the right track. Such informal discussions may be of great value; but when they are made formal and represent a very serious effort on the part of the consultant, and result in definite advice duly entered in the patient's clinical record, their value is greatly increased.—Burgess, A. L.: Editorial: Consultations, *Ann. Int. Med.* 55: 698 (Oct.) 1961.

Diagnosis of Predisposing Causes of Pneumonia

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WINSTON-SALEM

Traditionally, pneumonia is defined as a disease and treated as one; actually, it is not a discrete pathologic entity, but rather a symptom of some underlying condition. The mere treatment of pneumonia with antibiotics is, therefore, nothing more than palliative, and recurrence of the condition may be expected until the underlying cause has been identified and treated.

Any of the following conditions may cause the lowered patient resistance which contributes to the pulmonary pathologic picture commonly termed pneumonia: anemia; endocrine or exocrine gland dysfunction—diabetes mellitus, hyperadrenocorticism, hypo- or hyper-thyroidism, cystic fibrosis; emphysema; alcoholism; psychosomatic illnesses; allergies; cardiac conditions; dietary deficiencies; hemodystrophies or other hemopathy; bacillic and viral infections—the list is almost endless.

The Anemias

Pneumonia may be a complication in any type of anemia, as all anemias reduce the patient's resistance to pulmonary infection. Anemia may stem from such diverse sources as postpartum bleeding, improper diet, carcinoma of the colon, autohemolysis, or hereditary deficiencies. Since anemia is itself a symptom of some underlying condition, its cause must be found and properly treated to prevent recurrence of the pneumonia.

The Glands

Repeated pulmonary infections may reflect endocrine dysfunction. *Diabetes mellitus* is a frequent cause of lowered resistance. Today, diabetes can be controlled with most cooperative patients. Unfortunately, the need for investigating a "trace of sugar in the urine" is often by-passed or minimized, and a number of diabetic patients who are taking oral preparations should be on insulin. Diabetes in such patients may be revealed by the presence of diabetic acidosis at the time of pneumonia. Sometimes, however, only a blood sugar determination or

glucose tolerance test will reveal the disease as the cause of the reduced resistance that gives rise to the pneumonic symptoms.

Hyperadrenocorticism, either endogenous or artificially induced by steroids, reduces the resistance of the body to infection and may mask a pneumonia until it is well advanced.

Hypothyroidism may be an underlying cause in patients with pneumonia. Myxedema or lesser varieties of hypothyroidism may occasionally be extremely difficult to diagnose and treat correctly. However, this condition, through secondary anemia or congestive heart failure, may predispose to pneumonia.

Hyperthyroidism may also underlie pneumonia. The development of thyrocardiac disease or relative nutritional deficiency may predispose to pneumonia.

Exocrine gland dysfunctions are also suspect. The cystic fibrosis syndrome in children, and its milder forms in emphysema, both cause increased susceptibility to pneumonia.

Alcoholism

Any patient who has recurrent pneumonia without displaying any other predisposing cause should be suspected of alcoholism. Whether in these cases the cause is malnutrition, aspiration of vomitus, exposure, or negligence in seeking treatment for minor infections is not always clear. Confirmation of the diagnosis may be difficult to obtain. Alcoholics are usually secretive, and strenuous efforts may be made both by the patient and his family to keep the alcoholism a secret. The patient's mate may not know he drinks, but a confidential conversation with the wife or husband may be helpful in making a diagnosis. A denial may reveal another predisposing cause; it may reasonably serve to rule alcoholism out as a predisposing cause and allow attention to be turned to other possibilities, or it may be later contradicted after a better knowledge of the family is obtained. If rapport

with the family is not established, the physician may be embarrassed by the patient's delirium tremens after several days of hospitalization. Physical examination may reveal signs of cirrhosis or alcoholism, such as a slightly enlarged liver, bilaterally enlarged parotids, spider angiomas, venous collaterals, liver palms, high blood pressure, and facial redness.

Psychosomatic Origins

The frequent association of depressive states with pneumonia justifies a suspicion that these and other psychosomatic conditions may be a predisposing cause of pneumonia. The patient's story in case 1 is a case in point.

Case 1: An attractive brunette housewife, aged 27, was seen because of severe pneumonia. The laboratory, x-ray, and clinical findings were impressive, but failed to account for the severity of the symptoms. An asthmatic component in the patient's respiratory condition was controlled, and she was discharged, only to be readmitted. Again her symptoms outweighed the signs, and the patient's depression became evident. The depths of the depression could not be plumbed, however, owing to her unwillingness to discuss her problems. A year later she revealed that the unfaithfulness of her husband had depressed her to the point of suicide, just before the onset of the pneumonia.

Pneumonia may also develop by other psychosomatic mechanisms.

Case 2: A 25 year old man had attacks of anxiety that caused air-swallowing. This resulted in an intense feeling of fullness, nausea, and severe frontal headaches. The impulse to relieve the fullness by self-induced vomiting invariably resulted in aspiration laryngitis, bronchitis, or pneumonia.

Specific instructions were to take two aspirin tablets, go to bed, and under no circumstance to induce vomiting. No further episodes of respiratory infection occurred.

Case 3: A 32 year old woman was first seen because of an apparently mild bronchitis. Ten hours later, however, she was dyspneic, cyanotic, and in severe respiratory distress. A chest roentgenogram showed confluent pneumonia in four of the five lobes. She was treated with large amounts of intravenous penicillin, aminophylline, steroids, and digitalis. Despite unconsciousness and deep cyanosis, and a respiratory rate of 60, she responded to treatment and was discharged seemingly recovered.

A month later, after I had seen her little girl

in the office, the patient had another milder attack of pneumonia. At a later date, just after her husband was seen for a mild sore throat, she had a third attack. She was requested to stop smoking and to take antihistamines in an attempt to prevent a recurrence of pneumonia. She took the drugs, but continued to smoke. The fourth attack occurred the day I saw another member of the family, but again this fact was dismissed as coincidental.

At the fifth attack the alarmed husband called just a few hours after I had treated another of her children. On this occasion definite musical rales were heard, and an injection of adrenaline in oil relieved the patient's symptoms. This was repeated on two more occasions. Finally the patient told me that she was frigid. I promptly referred her to another physician, experienced in treating patients with emotional problems. He found that she was comparing me with her husband, becoming increasingly hostile toward him. This situation led to the onset of asthma. The exposure of the relationship between the onset of pneumonia and her visits to my office relieved this cycle of events, and she had no more respiratory infections.

Allergy

Allergy is frequently an overlooked factor in pneumonia. It is easy to attach too much importance to the presence of musical wheezes and rales in diagnosing allergic disease of the lungs. Very frequently the diagnosis must be made in the complete absence of any typical breath sounds, with only fine and medium moist rales present on auscultation, and with superimposed secondary infection present.

Every patient with a history of asthma, eczema, drug allergy, hives, sinusitis, hay fever, emphysema, or with the slightest difficulty in full expiration, or who has definite seasonal allergies, should be treated as though an allergic process were the primary disease, with a secondary bacterial infection superimposed. Any patient who fails to respond rapidly to specific antibiotic therapy should be suspected of having an allergic basis for the infection and be given a trial of bronchodilators or antihistamines. The rapid clearing frequently obtained is gratifying.

Inability to recognize the underlying factor prolongs the course, frequently forces a change in the antibiotic used, and allows the factors of antibiotic resistance, drug al-

lergy, and emergence of secondary infections such as gram-negative pneumonia or fungal infection to enter the picture.

Sometimes pneumonia may be triggered by allergic reactions to antibiotics and other drugs. Penicillin is a frequent offender. An asthmatic reaction may occur and predispose to pneumonia. A vicious cycle may ensue if more penicillin is given for the pneumonia because of continued fever. Fortunately, such drug allergies are often revealed by a skin rash. In cases where symptoms increase after drugs are administered, drug allergy should be considered, and if circumstances warrant, the drug should be withdrawn.

The recurrence of a pneumonia, or its failure to resolve, may be due to antibiotic resistance or conversion to gram-negative flora, caused by surreptitious self-medication or undisclosed previous medication.

The reluctance of patients to take medicine costing \$2.00 a day for an apparently asymptomatic condition is understandable, as is an attempt to avoid the physician's fee by continuing the discarded medication when an apparently similar condition arises. The failure to tell about previously prescribed drugs reflects a sense of guilt about changing physicians.

Case 4: An alert, active housewife, 33 years of age, was first seen with pneumonia. Because of a history of allergy (sinusitis), she was given a bronchodilator. On her return visit she was warned of possible inhalant allergy. She came to my office immediately after symptoms started, and was rapidly relieved by a bronchodilator. She had swept a dusty garage just prior to the attack, and remembered that she had swept it just before her first attack of pneumonia, and that several previous episodes had followed this seasonal chore.

Case 5: Another woman patient, aged 38, had repeated attacks of bronchitis and bronchopneumonia. She gave a typical history of allergy, with complaints of persistent hoarseness, shifting nasal obstructions, itching of the eyes and nose, and nasal and postnasal discharges. The posterior part of the pharynx usually showed reddened lateral walls, and the sinuses did not transilluminate. She was given antihistamines, and thereafter she was often able to prevent the development of respiratory infections secondary to the allergy.

Loeffler's syndrome, or eosinophilic

pneumonia, must also be considered when allergy and pneumonia are discussed. Several causes for this condition have been noted: severe bronchial asthma, reaction of the lungs to migrating parasites, sensitivity to nickel salts, penicillin reactions, hyposensitizing infections, and collagen diseases. Immunologic defects occasionally encountered in practice include hypogammaglobulinemia, diagnosed most frequently in asthmatic children. Environmental factors may include exposure to contaminated milk, insect vectors, animals bites, fumes, or dust. These often interplay with allergy. Industrial smog, pollens, or even house dust may precipitate asthmatic attacks which develop into pneumonia.

Collagen Diseases

The association of certain collagen diseases with pneumonitis is well known. The presence of pneumonitis with pleurisy in acute rheumatic fever has been frequently noted. Here the cardinal features of polyarthritis, pericarditis, chorea, subcutaneous nodule, and response to salicylates may be of help in pinning down this diagnosis. The pulmonary lesion of rheumatoid arthritis can also simulate atypical pneumonia or acute diffuse interstitial fibrosis.

Case 6: A 28 year old male parking-lot attendant was seen at his home because of bilateral pneumonia. He had a grade II-III mitral stenosis. After the pneumonia cleared (his fourth episode in three years), arrangements were made for evaluation for cardiac surgery. Operation was performed, and he has since had an easily observable decrease in respiratory infections, and increased strength and vitality.

Cardiac Conditions

Congenital heart disease may also cause repeated episodes of pneumonia or frequent upper respiratory infections.

Case 7: An 8 year old girl who had had repeated episodes of pneumonitis, bronchitis, and similar illnesses was brought to my office. Her mother was reluctant to have me do more than "look at my child's throat" and "give her a shot of penicillin." However, she was persuaded to allow a full examination. The child had a "machinery" murmur in the second and third interspace on the left of the sternum, in the mid-clavicular line. A routine test to rule out venous hum made no change in the murmur. After x-ray examination of the chest, electrocardiographic

studies, and consultation, a cardiac catheterization was performed at the local teaching hospital that confirmed the diagnosis of patent ductus. The operation was performed without difficulty. The patient has gained strength and weight, and no longer has frequent respiratory infections.

Case 8: An 84 year old retired farmer had had two recent episodes of pneumonia. During the third episode he was found to be in congestive heart failure. After digitalis and an appropriate antibiotic were started, he recovered. Mild congestive heart failure was the key factor in this patient. He has had no pneumonia since being digitalized.

Nutritional Deficiencies

Lack of essential vitamins and proteins may reduce host-resistance to infection. Rarely, dietary fads, economic factors, psychoses, or drug interference may produce these deficiencies. They respond rapidly to appropriate treatment.

Severe burns, nephrotic lesions, multiple myeloma, lymphomas, and cirrhosis may cause dysproteinemias which result in reduced resistance to infection.

Dyscrasias

Leukopenia removes a barrier to infection. Pneumonia is a frequent complication of congenital neutropenia, of drug-induced agranulocytopenia, and of the use of potentially dangerous drugs such as nitrogen mustard, TEM, phenylbutazone, and in gold therapy.

Infections

Other factors that may lead to pneumonia include increased virulence or exceptional concentrations of an organism. Hospital-bred resistant staphylococcal infections have recently attracted much attention. These organisms are most likely to attack the weak, but occasionally affect individuals with normal resistance. Any infection developing in a family one of whose members has been recently hospitalized should arouse suspicion. Phage-typing may provide conclusive evidence of the relationship between several infections.

Bloodborne infection from foci such as sinusitis, otitis media, tonsillitis, pyoderma, endocarditis, dental infection, septicemia, osteomyelitis, bowel infections, diverticuli-

tis, appendicitis, prostatitis, rectal abscess, cystitis, cervicitis, and vaginitis may cause pneumonia. Examination of a patient with pneumonia should include consideration of each of these possibilities.

Case 9: A 38 year old heating engineer was seen in his home because of fever due to right lower lobe pneumonia. On failing to improve, he was admitted to the hospital. The sputum culture revealed a species of *Klebsiella*. A blood count showed only 3600 white cells. The next day the liver was palpable, and the patient became mildly icteric. Laboratory tests confirmed the diagnosis of viral hepatitis. Organisms which caused the pneumonia apparently took advantage of the reduced resistance caused by the hepatitis.

Sporadic influenza cannot be recognized as the underlying cause of pneumonia without specific viral studies. During epidemics, however, its presence may be deduced by the clinical course. Measles may frequently predispose to pulmonary infections, as can other viral infections.

Secretions

Pneumonia is often the result of position in a bedridden patient. The determining factor, however, is the ability of the patient to handle secretions. Head injuries, strokes, psychoses, neuromuscular debilities, and rheumatoid arthritis decrease the ability to handle secretions and generally weaken the body, explaining the increased frequency of pneumonia in such patients.

Case 10: A 43 year old retired policeman with amyotrophic lateral sclerosis was seen because of pneumonia. He had extreme muscular atrophy, associated with great difficulty in handling secretions. He was treated with antibiotics, and his wife was taught to use a simple bulb syringe to evacuate his secretions. The secretions continued to be a problem, however, and eventually required a tracheotomy.

Case 11: A 55 year old housewife, hospitalized by her surgeon for elective cholecystectomy, had difficulty after the operation with deep breathing and coughing. Many fine moist rales were heard over the right lower lobe, and the temperature was elevated. After treatment with tetracycline for a few days, the lungs cleared and the patient became afebrile. The postoperative atelectasis resulted from inhibition of cough owing to pain from the abdominal incision, and led to pneumonia.

Case 12: A 36 year old machinist, apparently in good health up to six weeks prior to his visit to

my office, had multiple complaints, including frequent indigestion and a 15-pound weight loss. He had a mild pneumonia in the right upper lobe, and a past history of ulcers. After several recurrences of pneumonia, a chest roentgenogram revealed a hilar enlargement. Pathologic examination of a cervical node revealed anaplastic mucoepidermoid carcinoma. The patient eventually died despite treatment.

Other Causes

Repeated episodes of pneumonia may result from tumors of the lung, such as carcinoma, bronchial adenoma, and metastatic tumors.

Recurrent aspiration pneumonitis may occur in conditions such as esophageal diverticula, cardiospasm, hiatal hernia, esophageal cancer, and stenosis.

Case 13: A 28 year old waitress presented consolidation of the right lower lobe. After careful questioning as to possible inhalation of foreign bodies, she revealed that she had a tooth pulled the day before the onset of pneumonia. Aspira-

tion of blood probably caused the pneumonia.

Case 14: A 28 year old stock loader was disturbed by frequent recurrence of sore throat, upper respiratory infection, and pneumonia. Several measures to reduce the number of infections were tried without success. Finally the patient stopped smoking and was free of respiratory infection for three months. After this period he resumed smoking and returned to my office about one week later with another recurrence of pneumonia. This recurrence convinced him that smoking aggravated his trouble. He stopped again, and has had no infection since. Smoking may aggravate or predispose to pneumonitis by increasing secretions.

Conclusion

The forgoing case summaries suggest that pneumonia is not a primary disease, but is usually linked to predisposing disease processes which may, in turn, have yet other causes. Thus a wide knowledge of medicine in general, and of the individual patient in particular, is needed for the treatment of this condition.

Selenium Oxide Poisoning

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BOONE

At 12:15 P.M. on Thursday, September 7, 1961, a fire started in the Selenium Rectifier Department of International Resistance Company in Boone, North Carolina. A maintenance man was cutting with an acetylene torch when a spark fell into a steel drum containing selenium and aluminum, metal chips and dust, and started a fire. A cloud of thick yellow smoke boiled up immediately. The fire alarm was pulled and all employees were evacuated. The department is air-conditioned, and the yellow smoke was picked up in the air conditioning system and belched out into the adjacent engineering office. Within minutes the entire area was filled with the highly toxic smoke and fumes of selenium oxide. The company fire squad went into action with carbon dioxide extinguishers, but owing to the intense heat in the steel drum, the fire persistently broke out again. A rope was looped around the drum, and it was dragged outside the building.

Twenty-eight of the employees were exposed directly to the smoke and fumes of the selenium oxide. These were the men who remained to fight the fire and search the area after the others were evacuated. The time of exposure to the fumes varied with the individual, and in some instances there were two different exposures, but no one was exposed for more than 20 minutes.

All locally available emergency services were called into action and all available oxygen was administered by mask to the men lying on the ground, who were experiencing bronchial spasm with coughing, gagging, and in some instances transient loss of consciousness.

The Poison Control Center at Duke University Hospital, Durham, was immediately contacted for information concerning the toxicity of selenium oxide and the treatment of choice following inhalation of fumes. Prompt and helpful advice was received, and first-aid measures were instituted. The

victims of the exposure received oxygen by mask intermittently for periods up to 30 minutes. A helpful, soothing first-aid measure was the inhalation of fumes from sponges soaked in ammonia, which seemed to have a neutralizing effect upon the burning in the pharynx and bronchial tubes.

Symptoms

The initial symptoms were constriction in the chest, accompanied by burning and irritation of the upper respiratory passages, violent coughing and gagging with nausea and vomiting, and a bitter acid taste in the mouth. During the acute episode there were mild symptoms of shock, with some drop in blood pressure and an elevated pulse and respiratory rate. Other symptoms experienced during this stage were burning of the skin, conjunctiva, and mucous membranes of the upper respiratory passages. By 3:30 P.M. all patients had apparently recovered from the acute episode and a recheck of their blood pressure, pulse, respiratory rate, and general condition was found to be within normal limits. These men were released and instructed to bathe thoroughly and bury their clothing.

Within two hours after the acute phase had subsided, the victims began complaining of secondary symptoms with the onset of generalized chills, accompanied by nausea and vomiting, diarrhea, malaise, dyspnea, and headaches. The onset of secondary symptoms was delayed in some of the victims for several hours after the initial exposure. Within 12 hours, however, all exposed personnel began experiencing the symptoms described. Following the chills their temperature became elevated from 2 to 4 degrees and symptomatic treatment in the form of aspirin was instituted.

Decontamination Procedures

Immediate decontamination procedures were started at the plant. Fans were set up to blow the smoke and fumes toward the back of the building, where the doors were opened and windows broken to remove smoke and fumes without contaminating other areas. The area was closed off to everyone except those equipped with gas masks and instructed in their use.

After the smoke had vanished, a heavy layer of yellow-brown fallout powder remained and contaminated everything in the entire area. A thorough scrubbing with a solution of soda bicarbonate and water to neutralize the precipitated oxide was used on the floors, ceiling, walls, light fixtures, and shelves. Fixed items were decontaminated in place. The air conditioning system was cleaned and similarly treated. Tables, dishes, equipment, chairs, and trays were removed from the cafeteria and dispensary and put through a decontamination process. All food in the cafeteria was burned, along with the personal property exposed in this area. Everything that was exposed to the fallout was destroyed or decontaminated. The walls and ceiling in the Rectifier Department were painted before the plant was declared ready for resumption of operation. Selenium is known to be more poisonous when ingested than when inhaled. It is similar to arsenic and with ingestion produces symptoms of arsenic poisoning.

Case reports

Case 1

By 7:30 a.m. the following morning the first patient, a 30 year old male, was admitted to the hospital. He was cyanotic and in moderate respiratory distress. He complained of chest pain bilaterally, and was experiencing bronchial spasms. A chest roentgenogram revealed extensive bilateral consolidation of the lung fields, indicating a chemical pneumonia. The white blood cell count was elevated to 15,300, with a marked prominence of neutrophils. Sputum studies revealed a multiplicity of organisms, with some predominance of short, fat gram-negative diplobacilli and *Candida albicans*. He was placed in an oxygen tent and given aminophylline to control the bronchial spasms.

Case 2

At 10:30 p.m. the second victim, a 42 year old male, was admitted to the hospital in a similar dyspneic, cyanotic state with an elevated white blood cell count of 24,600. X-ray again revealed bilateral atelectasis and consolidation, indicating a chemical pneumonia.

Case 3

On the morning of September 10 a third employee, a 25 year old male, was admitted to the hospital in less respiratory distress, with a

normal white blood cell count and a chest film which revealed bilateral elevation of the diaphragm with extensive peribronchial infiltration and some consolidation at the lung bases.

Case 4

At 8:00 p.m. on this same date a 25 year old male was admitted to the hospital with a normal white blood cell count and a chest film revealing bilateral increase in lung markings consistent with bronchitis; however, no consolidation was evident.

Case 5

The final patient to be hospitalized, another 25 year old male, was admitted on September 11 with a white cell count of 12,800 and a prominence of neutrophils. The x-ray film indicated bilateral chemical pneumonitis.

Recovery

On Monday all employees with any upper respiratory complaints were examined. Thirty-two of the 53 employees examined were found to have a residual bronchitis of minimal to moderate degree which required medication. These were treated on an outpatient basis. Within a week all were asymptomatic and free of any respiratory signs.

The first patient admitted to the hospital experienced a stormy course, requiring constant oxygen for the first nine days of hospitalization. By the fifth hospital day, x-ray films revealed a further extension of the previously noted bilateral pneumonic consolidation. Within two weeks following admission, comparison of a chest film with previous films revealed marked improvement bilaterally, and the patient's general condition improved rapidly. He was free of respiratory distress, and his white blood cell count had returned to within normal limits. His temperature remained normal for three days, and he was discharged home for convalescence.

The second hospital patient, the chief engineer of the plant, required continuous oxygen for six days. He was discharged after nine days of hospitalization. His white blood cell count had returned to normal and a repeat roentgenogram revealed improvement.

The third and fourth patients admitted improved dramatically and were discharged three days after admission.

The last patient was discharged, without symptoms, after four days of hospital care.

Comment

It is interesting to note that the only employee of the five hospitalized cases who did not receive oxygen on the afternoon of the fire was the first patient to be hospitalized. He had an extensive bilateral pneumonia requiring a prolonged hospital stay.

The second most involved and prolonged illness was that of the chief engineer, who received only about six breaths of oxygen following his exposure.

Most of the other employees directly involved received oxygen by mask for periods of 5 to 30 minutes immediately after exposure to the toxic fumes. All the exposed employees testified that the ammonia inhaled from the sponges was soothing to the mucous membranes of the nasal and respiratory passages. Tetracycline was prescribed for the outpatients who contracted bronchitis as a result of their exposure. The hospitalized patients received 600,000 units of bicillin daily and supportive therapy.

Summary

Initial treatment and follow-up care for 37 employees of International Resistance Company who were exposed to selenium oxide poisoning has been presented. Exposure to the toxic fumes resulted in bronchial spasms and symptoms of asphyxiation. Treatment consisted of the administration of oxygen by mask and inhalation of fumes from ammonia-soaked sponges. Secondary symptoms were chills, fever, headaches, and bronchitis. Pneumonitis and bilateral consolidation with an extensive chemical pneumonia occurred in 5 patients who received less first aid treatment than the others. The resulting pneumonias were treated as are other bacterial pneumonias, and all patients improved rapidly and recovered without residual effects.

Report from The Duke University Poison Control Center

JAY M. ARENA, M.D.

DIRECTOR

CARBON TETRACHLORIDE

Carbon tetrachloride is a volatile colorless fluid with an odor similar to chloroform, to which it is chemically closely related. It decomposes to phosgene on heating. It is mainly used as a nonflammable solvent and cleaner in factories, garages, and household floor waxes and cleaners. Carbon tetrachloride is still an important ingredient in fire-extinguisher fluids and insecticide sprays, but its use as an anthelmintic has been almost universally discarded.

Identification

Carbon tetrachloride can be identified by (1) a characteristic odor on the breath or in the vomitus; (2) a positive Fehling's test for sugar in the urine; (3) the isonitrile test; (4) the pyridine test; (5) the microdiffusion test.

To perform the isonitrile test, place a small amount of suspected liquid in 10 ml. of distillate, then add 1 ml. of purified aniline and 2 ml. of 20 per cent sodium hydroxide. Gently heat this mixture for several minutes. A positive result produces a foul (skunk) odor of phenylisonitrile. Other chlorinated hydrocarbons such as chloroform, trichlorethylene, and chloral hydrate also give a positive reaction.

The pyridine test is performed by adding 5 ml. of sodium hydroxide and 5 ml. of purified pyridine to 1 ml. of suspected fluid or 10 ml. of distillate. Gently heat for five to ten minutes on a steam bath. A pink-red color may indicate carbon tetrachloride. Chloral hydrate, chloroform, or other chlorinated hydrocarbons also give similar reactions. If the distillate or solution is very dilute, first concentrate it by extraction with *n*-heptane and then do the test on this.

The microdiffusion test may be employed directly on the biologic specimen.

- a. Reflux for two hours with sodium hydroxide and titrate for organic-bound chlorides.
- b. *Beilstein test*. Burns with a green flame with cupric oxide heated on a copper wire. (All chlorinated hydrocarbons yield a green flame.)

Intoxication follows inhalation, ingestion, or absorption of the substance through the skin; and the ingestion of as little as one teaspoon has been known to cause death. The greatest number of poisonings follow its use in a poorly ventilated room, and are due to inhalation. The maximum allowable concentration (MAC) in air is 25 ppm., or the equivalent of 250 ml. (1/2 pint) evaporated in a room 50 x 15 feet.

Alcohol taken in the course of exposure, or shortly thereafter, greatly potentiates the toxic effects, and an otherwise minimal exposure can produce severe poisoning. The presence of fat in the small intestine also seems to favor more severe intoxication.

Toxic Effects

In mild reactions, no more than intestinal cramps and diarrhea may develop some time after exposure; the pain may be so severe, however, as to simulate an acute abdomen. The immediate result of more severe intoxication is to make the patient drowsy and sluggish. Nausea, vertigo, vomiting, headache, and malaise accompany the drowsy state. If alcohol is ingested at the same time, unconsciousness can quickly follow. Frank respiratory failure and ventricular arrhythmia may occur. Stimulants such as epinephrine or ephedrine, therefore, should not be used as they may induce ventricular fibrillation.

Renal and hepatic failure are the complications to be feared. If the intoxication is mild, no more than oliguria lasting a few days may follow. In more severe involvement, complete anuria may set in following a few days or a week or more of oliguria, with red cells and albumin present in the scanty urine. Hypertension, acidosis, and terminal uremia develop if kidney function is not restored. A toxic hepatitis may be present, producing only a subclinical jaundice leading to hepatic coma.

Mortality in this condition has, in the past, reached as high as 90 per cent in severe intoxication, but there is no doubt that with early recognition and careful treatment many patients will survive—providing that hepatorenal necrosis is not so severe as to preclude recovery.

Treatment

If a patient is seen shortly after inhaling the agent, he should be moved to fresh air and, if indicated, given artificial respiration. If the solvent was swallowed, immediate gastric lavage should be performed with tap water and magnesium sulfate given orally. Liquid with a high fat content, such as milk, is definitely contraindicated.

Treatment is primarily supportive and is directed to tiding the patient over the period of oliguria or anuria. Forcing fluids to stimulate restoration of kidney function is dangerous and in the past may have been a cause of death. Since death has frequently been due to pulmonary edema or hyperpotassemia, careful attention must be given to maintenance of fluid and electrolyte balance. During the period of anuria, fluids should be limited to about 800 ml. per day, plus the estimated loss by perspiration, diarrhea, vomitus, etc. This is best given as 10 per cent glucose, which also serves to spare body proteins and lessen the possibility of high serum levels of potassium. Hyperpotassemia can be promptly but temporarily reduced by giving hypertonic glucose intravenously, in conjunction with

insulin; intravenous calcium gluconate alleviates the effects of elevated serum potassium. In exceptional cases, artificial dialysis is necessary. Sulfhydryl compounds have been reported as being beneficial. Methionine and cysteine can be given in a dosage of 10 to 15 Gm. per day. Recently the experimental administration of nicotinic acid or tryptophan to animals has given protection against lethal doses of carbon tetrachloride.

Profound diuresis frequently accompanies renal recovery; significant losses of sodium, potassium and chlorides may occur, requiring careful replacement as indicated. Treatment of the liver damage is similar to that of acute hepatitis and is primarily supportive. A high carbohydrate diet is beneficial.

Prophylaxis

Prophylaxis is of the utmost importance, and is the only certain way to eliminate poisoning. Substitutes that are less toxic are available for all the possible uses of "carbon tet." Methyl chloroform is a solvent compound nearly as efficient as carbon tetrachloride, and is considerably safer to use. It is nonflammable, has a pleasant odor, is relatively noninjurious to kidney and liver, and is considered only slightly toxic under normal circumstances. If the use of carbon tetrachloride is unavoidable, adequate ventilation to permit rapid removal of vapors, and abstinence from alcohol are mandatory.

Labour now has a 40-hour week and aims for one of 30 hours. Does this create a sense of leisure in the worker? Not at all. Figuratively, instead of inducing him to potter around his own garden it gives him time to be gainfully employed as some other person's gardener. The monetary rewards of his efforts, and probably his wife's too, enable him to buy a faster car so that he may outstrip his neighbours on a super-highway in the hope of reaching a holiday area before the usual Sunday crowd.—From the *Obsolescence of Leisure*; by Elinor F. E. Black, M.D., in *The Canadian Medical Journal* 85: 940, October 21, 1961.

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FEBRUARY, 1962

AN IMPORTANT MEDICAL MERGER

The American Medical Association announced on December 7 that the American Medical Education Foundation and the American Medical Research Foundation had been combined into one foundation—the American Medical Association Education and Research Foundation. Dr. Hugh H. Hussey, Jr., chairman of the A.M.A. Board of Trustees, is president of the new foundation; Dr. Raymond M. McKeown is vice president; and Dr. James Z. Appel, secretary-treasurer. Other members of the board are Drs. Leonard W. Larson and Gerald D. Dorman.

The foundation is seeking funds to support the following programs: unrestricted financial assistance to medical schools; a medical journalism fellowship program; a research grants program for medical re-

search workers; a study of perinatal mortality and morbidity; a study of continuing medical education.

In these days of multiplying fund-raising organizations, it is hard to know which to choose. There is no doubt, however, as to the worthiness of this new foundation. It should appeal particularly to all physicians of good will, because they may be sure that their donations will be used for the purposes intended, and that they will not go for overhead expenses.

* * *

"A PRETTY GHASTLY, AWFUL PICTURE"

A paper by Dr. J. R. Seale, "The Supply of Doctors," and the leading editorial, with the title above, in the *British Medical Journal* for December 9 are shock treatment for those who have been proclaiming the success of the British National Health Service (N.H.S.). Since no attempt need be made to improve on the use of his language by an educated Englishman, extracts from the editorial and the final paragraph of Dr. Seale's paper will be quoted verbatim:

"A succession of Ministers of Health and their advisers have been so immersed in the routine of their jobs, or so busy explaining to visitors what a marvellous thing the N.H.S. is, that they and their staffs and the numerous administrators in the Health Service have concealed from each other and the public that medicine in Britain is in a mess. Last week Lord Taylor, opening a debate in the House of Lords on the growing shortage of doctors, described, in a place not encouraging exaggeration, the present position as 'a pretty ghastly, awful picture,' and as 'a new and desperate situation.' It is difficult to believe that everyone all the time has been unaware of what was happening, yet the recent disclosures in these columns and elsewhere, that, outside the teaching hospitals, the N.H.S. hospitals to a great extent depend for the continuation of their work upon some 4,000 foreign doctors, a large proportion from India and Pakistan, have caused surprise . . . Lord Taylor found, for example, such a state of affairs in mental hospitals as to conclude:

'it is very rare indeed that you will find the staff of a mental hospital now is an English or a British staff.' There also appears to be a shortage of casualty officers. Referring to the non-teaching hospitals—by far the largest number in N.H.S.—he said:

I cannot recommend your Lordships to go into such hospitals as a casualty, for there is in many cases no casualty officer. A house-surgeon will have to leave the theatre when he can, to treat you, and his experience will be far less than that of your own general practitioner. When he comes he will probably not be a British graduate and he could well have difficulty in understanding what you say. This is at a time when speed and efficiency may be literally life saving.'

"It is obviously time that Britain stopped the kind of self-praise that has been really no recommendation for its National Health Service. Whilst no one would lay the whole cause of our present discontents at its door, it would be unwise to exculpate it. As Dr. Seale says, it is better to look at what people are doing, and the fact that doctors are emigrating in the numbers that are known, and that a few general practitioners are giving up the financial security of practice in the N.H.S. for the hazards of private practice, should at least remind us that everything is not for the best in the best of all possible worlds.

"If the 10% increase in the intake of medical students proposed by the Government takes place, then after 1968 output of doctors will rise by 170 a year. But, since 1955, 220 British doctors have been settling in Canada alone each year. If this loss could be stopped the immediate increase in the supply of British doctors would be greater than the increase resulting from the Government's proposals, which, anyhow, will take seven years to become effective. Young British doctors will remain in the N.H.S. only if conditions of service are reasonably attractive. By their actions, rather than by their words, they have shown that they are unattractive. Up till the present the Government, and many leaders of the medical profession, have failed to see that this is so. But as the failure in the supply of doctors sweeps through the National Health Service and the medical profession like a hurri-

cane, even the sand in which our leaders have buried their heads is being blown away."

It is pity that these statements cannot be read by all who think government-controlled medical practice is the answer to the problem of medical care. Those who know such British medical refugees as Dr. John Reckless of Duke, and Drs. Abse, Downie, and Ewing of Carolina, will agree that Britain's loss is America's gain. It is to be hoped that our plan of medical practice will not be changed to imitate the British National Service.

* * *

PLATO UP TO DATE

More than 24 centuries ago, Plato advocated the selective breeding of children, in order to perpetuate the best traits of the human race. Some 30 years ago, Aldous Huxley, in his "Brave New World," described a hypothetical test-tube method of procreation, with the products of conception graded according to their abilities, from the top-ranking alphas to the lowly epsilons.

Still more recently, in the September 8 issue of *Science*, Dr. H. J. Mueller, Service Professor of Zoology at Indiana University, advocated a method of breeding human beings so as to ensure the highest possible I.Q.'s in future generations. He proposed that sperm cells from men of superior intellect be kept in deep-freeze banks, to be used for impregnating women who would "be glad to give serious consideration to the best available assessment of the genetic probabilities involved."

At least one objection might be raised to the universal adoption of Professor Mueller's plan: Should the human race eventually become all geniuses, who would hew the wood and draw the water for them? It may be that Huxley's plan of having enough gammas and deltas and epsilons to balance the alphas and betas is more practical, and that it would bring us back to the present distribution of talents.

Professor Mueller's thesis recalls a ribald poem of years ago, which told of a new method for doing some common task, but

ended with the line: "But thank God we make our babies in the same old way."

It will take many years and much argument about it to persuade people to abandon the old way of procreation.

* * *

NEW ENGLAND JOURNAL'S SESQUICENTENNIAL

The January 4 issue of the *New England Journal of Medicine* is a memorable one. It marks the beginning of its one hundred fifty-first year of publication. As Dr. John Lister's London letter in the December 28 issue notes, this is the longest service rendered by any English-speaking medical journal—and it is doubtful if any other journal in any language can match this record.

Mere longevity, however, is by no means the *New England Journal's* only claim to distinction. It has long been one of the truly great medical journals, not only of the United States, but of the world. And it has never had a higher level of excellence than it now enjoys under its present editor. To our Yankee contemporary and its editor, Dr. Joe Garland, the NORTH CAROLINA MEDICAL JOURNAL offers heartiest congratulations on its memorable anniversary, and best wishes for its next 150 years.

* * *

UNNECESSARY DEATHS

Recently the newspapers told of the tragic death of a prominent North Carolinian—the result of an automobile accident in which he was thrown out of the car. Such stories are so common nowadays that they attract little attention, except that of the victim's family and near friends. Such an untimely death is all the more tragic because it was not necessary. Almost certainly a seat belt would have saved his life by preventing him from being thrown out of the car. The value of the seat belt in saving lives has been proved beyond doubt. Their use is all the more important because of the tremendous

increase in the number of cars on our highways. It is too late to suggest giving your family or yourself seat belts as Christmas gifts—but it is not too late to have them installed. Their trifling expense is a very slight premium to pay for the insurance provided—insurance against serious injury, and possibly against premature death.

* * *

SYMPTOMS OF DISCONTENT

"'Tis true, 'tis pity; and pity 'tis, 'tis true," that some doctors participate in Blue Shield programs for their own profit and frequently raise their fees to patients enrolled in Blue Shield. There's no doubt that the doctor is professionally competent, but he's too often pretty impersonal and does not act like the "dedicated" person he's supposed to be.

These were some of the general conclusions of a recent pilot study of consumer attitudes toward Blue Cross and Blue Shield. The surveyors found that many people's feelings about Blue Shield—based on their experiences when seeking Plan benefits through their physicians—are less favorable today than six years ago.

Although these findings are admittedly inconclusive and not necessarily applicable to any but the areas of the pilot study, they will be ignored at our peril. Medicine needs the best possible public image in the days ahead, if it is to preserve the free environment in which doctors can best serve their patients.

What's to be done? Both immediately and ultimately, it's up to you and me. Dr. Francis Peabody once said, "The secret of the care of the patient is in caring for the patient." In today's world, this means a lively, thoughtful concern for each patient's personal welfare, his time, his problems, and—not least—his pocketbook.

Blue Shield was created in the doctor's image. And the doctor's image, in the long run, will control the destiny of Blue Shield and of the private practice of medicine.

Bulletin Board

COMING MEETINGS

North Carolina Chapter, American College of Surgeons, Meeting—Sir Walter Hotel, Raleigh, March 23-24.

University of North Carolina Annual Medical Alumni Day—Chapel Hill, March 30.

Medical Society of the State of North Carolina, One Hundred Eighth Annual Session—Raleigh, May 5-9.

Virginia Academy of General Practice Symposium—Lee-Jackson Hotel, Winchester, Virginia, March 14.

Southeastern Chapter, Society of Nuclear Medicine, Third Annual Meeting—Academy of Medicine, Atlanta, March 16-17.

Augusta Postgraduate Medical Assembly—Augusta, Georgia, April 2-4.

American Society of Internal Medicine, Sixth Annual Meeting—Benjamin Franklin Hotel, Philadelphia, April 6-8.

American Academy of General Practice, Fourteenth Annual Scientific Assembly—Las Vegas, Nevada, April 9-12.

American College of Physicians, Forty-third Annual Session—Philadelphia, April 9-15.

Virginia Chapter, Arthritis and Rheumatism Foundation, Seminar—Hotel Roanoke Rapids, Roanoke, Virginia, April 14-15.

NEW MEMBERS OF THE STATE SOCIETY

Dr. Laurin Juul Kaasa, Memorial Hospital, 300 New Bern Avenue, Raleigh; Dr. Bailey Graham Weathers, Jr., Farmington Medical Center, Route 2, Mocksville; Dr. Nicholas Pediaditakis, 340 Transylvania Avenue, Raleigh; Dr. Locksley S. Hall, Box 275, Yadkinville; Dr. Mary Noble Smith, Cannon Memorial Hospital, Banner Elk; Dr. Albert Pickett Dickson, III, Mitchell Street, Newland.

NEWS NOTES FROM THE DUKE UNIVERSITY MEDICAL CENTER

Dr. C. Ronald Stephen, professor and chief of anesthesiology at the Duke University Medical Center, is the co-author of a new book dealing with halothane, a recently developed and effective anesthetic agent.

The book, entitled, "Halothane," is published by Williams and Wilkins of Baltimore, Maryland. Co-author with Dr. Stephen is Dr. David M. Little Jr. of the anesthesiology department at Hartford, Connecticut Hospital.

Since its development some five years ago in England, halothane has become an extensively used drug in anesthesiology. The new book brings together the findings of researchers who have studied the properties and clinical use of halothane (known by the trade name Fluothane).

Dr. Stephens and his associates at Duke were among the first medical scientists in this country to conduct intensive evaluative studies of halothane. A color movie dealing with the properties and use of the new drug also has been made at the Duke Medical Center.

* * * * *

A program of expansion and reorganization has been initiated in the Duke University Medical Center's Department of Physiology and Pharmacology, Dr. Barnes Woodhall, Dean of the School of Medicine, announced recently.

Headed by Dr. Daniel C. Tosteson, recently appointed chairman of the department, the three-point program provides for:

(1) An increase of the physiology and pharmacology faculty from 13 to 21;

(2) Renovation of departmental research facilities in the School of Medicine and the Medical Research Building; and

(3) Reorganization of the department into six laboratories or research divisions.

At the same time University Provost, Dr. R. Taylor Cole, announced the appointment of several new faculty members in the department. They are: Drs. Paul Horowicz, John W. Moore, and Edward V. Evarts, all associate professors of physiology; Dr. Thomas J. McManus, assistant professor of physiology; Dr. Kurt E. Ahren, visiting assistant professor of physiology; and Dr. Carl Gerber, instructor in physiology.

Dr. Bodil Schmidt-Nielsen has become affiliated with the department as associate research professor of zoology and physiology. She has been a member of the University's Zoology Department staff since 1956.

NEWS NOTES FROM THE BOWMAN GRAY SCHOOL OF MEDICINE OF WAKE FOREST COLLEGE

Two recent additions to the faculty have been announced: Dr. Eugene Hargrove, commissioner of mental health of the North Carolina Hospitals Board of Control and clinical associate professor of psychiatry at the University of North Carolina School of Medicine, has been named lecturer in clinical psychiatry. Also named to the faculty is Mr. Frank Mulcahy, executive director of the Winston-Salem Goodwill Industries Rehabilitation Center. He is lecturer in rehabilitation.

* * * * *

The programs of the Bowman Gray Medical Society this month have included: Dr. Robert A. Ross, professor and chairman of the department of obstetrics and gynecology at the University of North Carolina, who spoke on "The development of obstetrics and gynecology in the south". Dr. Marian W. Kies, chief section on biochemistry, National Institute of Mental Health, whose topic was "Studies on experimental allergic encephalomyelitis—localization and isolation of the en-

cephalitogenic factor". Dr. Peter A. Stewart, associate professor of physics and physiology at Emory University, will speak on "The population explosion" on January 29.

* * * * *

A three-year grant in the amount of \$180,860 has been awarded by the John A. Hartford Foundation to the North Carolina Baptist Hospital and The Bowman Gray School of Medicine for continuation research by Dr. Ernest H. Yount and Dr. John H. Felts in the Department of Medicine. The program relates to the use of the artificial kidney in the management of renal disease.

NEWS NOTES FROM THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE

Charles Wright Hooker, professor of anatomy and chairman of the Department of Anatomy has been named a Fellow of the New York Academy of Sciences.

Dr. Hooker is actively engaged in research in endocrinology studying hormones. Recently, with colleagues, Dr. Hooker worked out a method of measuring a hormone in the blood, specifically an ovarian hormone.

* * * * *

Dr. Charles Herring of Kinston presented a report on "Follow-up Studies of Medical Treatment of Lung Abscesses" at a meeting in Winston-Salem sponsored by the American College of Physicians held recently at the Bowman Gray School of Medicine. He outlined the details of a study of some 40 cases of lung abscesses examined from two to eight years after treatment was completed.

Dr. Herring summarized the result of years of study which he completed last year at the University of North Carolina School of Medicine. He performed the studies in cooperation with Dr. Thomas D. Barnet of the U.N.C. Medical School and Dr. William D. Sprunt, now of Raleigh.

* * * * *

Lucie Jessner, M.D., professor of psychiatry, was chairman of a panel discussion section at the annual meeting of the American Psychoanalytic Association, held recently in New York City.

Dr. Jessner's panel discussed "Classical Forms of Neuroses in Infancy and Early Childhood."

* * * * *

Dr. George C. Ham, professor and chairman of the Department of Psychiatry, has been appointed to the National Advisory Mental Health Council, it was announced here recently.

As a member of the council Dr. Ham will advise and make recommendations regarding research and training programs sponsored by the National Institute of Mental Health to Surgeon General Luther M. Terry of the U. S. Public Health Department.

The American Cancer Society reported recently that an artificial protein component, ethionine, has been found to enhance the potency of a cancer-causing chemical.

The finding was made by Dr. Walter R. Benson, associate professor of pathology, of the University North Carolina School of Medicine.

MONTGOMERY COUNTY PHYSICIANS TO STUDY CARDIAC FAILURE

The Montgomery County Medical Society and the Department of Preventive Medicine of the University of North Carolina School of Medicine are embarking on a county-wide study of cardiac failure. All physicians in the county medical society, as well as all the pharmacists in the county and certain physicians and pharmacists outside the county, will gather information about patients seen with symptoms of cardiac failure, and will keep track of patients taking digitalis preparations during a six-month period.

The study is being supported by a research grant from the National Heart Institute of the United States Public Health Service, and is one of the first examples of a research project in which all members of a county medical society have participated. It was pointed out the studies carried out by physicians in their own practices represent one of the few ways in which useful information about the prevalence of certain conditions can be obtained.

EDGECOMBE-NASH MEDICAL SOCIETY

Elections held at the December meeting of the Edgecombe-Nash Medical Society resulted in the following slate of officers for 1962.

Dr. J. H. Justa, president; Dr. J. C. Brantley, Jr., president-elect; Dr. L. A. High, first vice president; Dr. T. B. Suiter, Jr., second vice president; Dr. J. L. Whaley, secretary-treasurer; Dr. Lloyd Bailey, editor of the bulletin.

Dr. Ed. Roberson was in charge of the program at the January meeting.

ROBESONE COUNTY MEDICAL SOCIETY

The Robeson County Medical Society met on January 8 in Lumberton. Dr. William Shingleton, Duke University School of Medicine, spoke on "The Chemotherapy of Cancer."

New officers for 1962 are: Dr. C. F. Inman, president; Dr. D. E. Ward, Jr., vice president; Dr. Bob Andrews, secretary-treasurer.

NEWS NOTES

Dr. J. Buren Sidbury has announced the association with him of Dr. William O. Jones in the practice of pediatrics, at Babies' Hospital, Wilmington, North Carolina.

Bill O. Howard recently joined Physicians Produce Co., Petersburg, Virginia as medical representative in Asheville and surrounding area, it has been announced by W. C. Comstock, director of sales.

A native of Rutherfordton, he is a graduate of Gardner-Webb College.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next scheduled examinations (Part II), oral and clinical, for all candidates will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board April 9 through 14, 1962. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I Examinations will be notified of their eligibility for the Part II Examinations as soon as possible.

The deadline date for the receipt of new and reopened applications for the 1963 examinations has been advanced to July 1, 1962. Candidates are urged to submit their applications as soon as possible before that time to the executive secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

AMERICAN MEDICAL ASSOCIATION

A new venture in public service advertising was launched by the American Medical Association early in January.

Every county medical society will receive the first six in a series of public service messages with the recommendation that these ads be placed in local newspapers.

The ads are simple, straight-forward, and non-political. Each message is "open end" so that a medical society can add appropriate local information. The first six ads cover these subjects:

- * Choosing a family doctor
- * Medical society grievance committees
- * Doctor-patient relationship
- * Why M.D.s promote immunization
- * Medicine's traditional guarantee of care for all
- * Cost of medical care

Jim Reed, A.M.A.'s Communications Division director, says the ads will help medical societies fulfill their educational responsibilities to the public and at the same time improve medical press relations.

"For years newspaper publishers have resented medicine's unwillingness to buy space to tell the people its views on specific subjects. What doctors considered conformity to medical ethics was construed as niggardliness by the press," Reed said.

"Medicine's traditional reluctance to call attention to itself allows many a criticism to go un-

challenged. Several medical societies have pioneered by placing institutional ads in local papers. These ads, styled as public service messages, have been extremely well received by the public and the newspaper profession."

The new series of public service ads has long been recommended by A.M.A.'s Communications Advisory Committee, composed of representatives from state and county medical societies. The next six in the series, with accompanying art work if societies choose to use it, will be ready early in February.

SOUTHERN REGIONAL EDUCATION BOARD

Miss Helen C. Belcher, consultant in nursing for the Division of Nursing, United States Public Health Service, will join the staff of the Southern Regional Education Board in February. She will direct the Board's new project in nursing education, Dr. Winfred L. Godwin, director of SREB, announced.

Financed by a \$151,160 grant from the W. K. Kellogg Foundation, the new program will attempt to provide more and better trained nurses for the South by encouraging recruitment and selection of capable nursing students for the region's schools.

NATIONAL SOCIETY FOR CRIPPLED CHILDREN AND ADULTS

Dr. Meyer Perlstein, a leading medical authority in the field of cerebral palsy, and Earl Schenck Miers, a famed author who himself has cerebral palsy, have collaborated to write an unusual, significant booklet of practical help to parents of children crippled by cerebral palsy.

The booklet, announced by the National Society for Crippled Children and Adults, is "Cerebral Palsy—Dr. Meyer Perlstein Answers Questions Parents Ask." It is the newest addition to a continuing series of pamphlets published by the Easter Seal Society to provide counsel and guidance to parents of crippled children in solving everyday problems.

The pamphlet is the product of spirited conversations that resulted when Dr. Miers posed to Dr. Perlstein questions usually asked by parents about the crippling condition.

Through the informal discussions, the two long-time friends cover a wide range of subjects, including the nature of cerebral palsy, relationships between the handicapped child and his parents, the inner life of the cerebral palsied, and the responsibilities of society to the physically handicapped.

Copies of the pamphlet are 25 cents each. Requests should be addressed to Publications Section, National Society for Crippled Children and Adults, 2023 W. Ogden Ave., Chicago 12, Illinois.

AMERICAN RHINOLOGIC SOCIETY

Dr. Charles J. Petrillo, associate clinical professor of otolaryngology at the Yale Medical School, is the new president of the American Rhinologic Society, an international organization of specialists in nasal surgery.

The president-elect for 1962 is Dr. Raymond L. Hilsinger, assistant professor of otolaryngology, University of Cincinnati Medical School.

Dr. Newton D. Fischer of Chapel Hill, is new chairman of the membership committee.

U. S. DEPARTMENT OF

HEALTH, EDUCATION, AND WELFARE

Clinical Center Study of Chronic Myelogenous Leukemia

The cooperation of physicians is requested in a study of chronic myelogenous leukemia being conducted by the Chemotherapy Service of the National Cancer Institute at the Clinical Center, National Institutes of Health, Bethesda, Maryland.

Referrals of patients with chronic myelogenous leukemia are needed, including some treatment-refractory patients with high white blood cell and platelet counts, for studies of newer chemotherapeutic agents, and as a sources of white cells and platelets for in vitro and in vivo study.

Accepted patients will be hospitalized for approximately 8 to 12 weeks.

Physicians who wish to have their patients considered for the study may write Dr. Paul P. Carbone, Chemotherapy Service, Medicine Branch, National Cancer Institute, Bethesda 14, Maryland.

* * *

Food and Drug Administration

The Food and Drug Administration announced recently that 10 prescription drugs for human use have been exempted from requirements that directions, hazards, warnings, and other information be on the dispensing package. Basis for the exemption, the agency said, is that information about the drugs is commonly known to medical practitioners.

In a policy statement published in the Federal Register on Thursday, December 28, FDA said that proposals for similar exemptions for other drugs believed by their manufacturers to be well known to practitioners will be considered by the Commissioner of Food and Drugs if submitted in writing with a statement containing grounds for the proposal.

Drugs exempted in the December 28 statement with dosages considered safe are: aminophylline, barbiturates, digitalis, erythrityl tetra-

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why
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prefer**



trate, mannitol hexanitrate, nitroglycerine, pentaerythritol tetranitrate, pentaerythritol tetranitrate with phenobarbital, sodium nitrite, and thyroid.

FDA also said that on December 27 it published a policy statement exempting prescription drug container labels from bearing dosages recommendations where space available is not sufficient for a fully informative and useful statement. FDA expressed the opinion that in such cases a label statement such as "See package insert for dosage information" would comply with the requirements of its regulations, provided detailed dosage information is contained in the insert.

The statement explained that the dosage for some prescription drugs varies within extremely wide limits, depending upon the conditions being treated, and that it may not be possible in all cases to give complete information in the space available on the immediate container label or the carton.

* * *

Public Health Service

A new rare familial disorder, characterized by enlarged odd-colored tonsils and low-blood cholesterol is providing scientists from the Public Health Service's National Institutes of Health

with a unique opportunity to study previously inaccessible factors affecting the transport and storage of cholesterol and other lipids (fat-like substances) in the human body.

Called Tangier disease, because it was first discovered in two children on Tangier Island in Chesapeake Bay, the disease involves the accumulation of extremely large amounts of cholesterol esters in the tonsils and certain other tissues of the body.

The findings in Tangier disease suggest that high-density lipoproteins may be essential to normal handling of cholesterol, possibly including an important role in its normal esterification with fatty acids.

VETERANS ADMINISTRATION

The second William S. Middleton Award, for outstanding medical research achievement by a Veterans Administration investigator, has been presented to Hubert V. Pipberger, M.D., of the Washington, D. C., VA hospital and Georgetown University School of Medicine, for his research in the diagnosis of heart, including coronary artery, disease.

Dr. Pipberger has pioneered and excelled in the automatic processing of cardiovascular data.

vi-syneral vitamin drops fortified (flavored)

1. provides vitamin B₁₂.
2. 100% natural vitamin A complex.
3. 100% natural vitamin D complex.
4. vitamin E to reduce susceptibility of red blood cells to hemolysis.
5. vitamins A, D, and E made aqueous* for far faster and more complete absorption and utilization.
6. vitamin B₆ . . . anticonvulsant vitamin.
7. lipotropic agents.
8. other essential B complex factors and vitamin C.
9. delicious fruity flavor.
10. no burps . . . no fish oil taste or odor . . . allergens removed.

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AMERICAN MUSEUM OF HEALTH

An American Museum of Health has been granted a charter, as an educational institution, by the Board of Regents of the University of the State of New York, according to Dr. Robert L. Levy, chairman of the Board of Trustees of the new corporation. A national advisory group of distinguished leaders in medicine, public health, and related fields is now being formed to assist in the development of a program for the museum.

The newly created institution will erect a \$3,500,000 Hall of Medicine and Public Health at the World's Fair 1964-1965 in New York City. Robert Moses, president of the Fair Corporation, said the Fair looks forward to an outstanding exhibit supported by local and national health and related organizations.

Book Reviews

A Brighter Later Life. By Howard Whitman. 333 pages. Price, \$4.95. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1961.

The author's conversational style, and the large, clear type make this book easy reading for the older person. In spite of the name, however, later life is not pictured as altogether a better one. The author faces realistically some unresolved problems posed by the "population explosion in the upper age range."

One of the greatest problems is the almost universal compulsory retirement at a fixed age—usually 65 years. Mr. Whitman points out the numerous evils in the custom, but unhappily has no solution other than to try to persuade industrial leaders to change their policy and to encourage legislation barring discrimination in hiring because of age. Incidentally, it may be noted that in 1958, the North Carolina Governor's Coordinating Committee on Aging prepared a brochure for distribution among employees, "A New Look at the Mature Worker," giving strong arguments in favor of retaining older workers who are still competent.

Another problem is that of living conditions for grandparents, especially those deprived of their mates. It was obvious that Mr. Whitman favored having them live with their children, rather than in retirement homes or in their own quarters. This is a very debatable question. The older person may be a veritable benediction in the home, but many marriages have been wrecked by a selfish, domineering parent or grandparent. Mr. Whitman stressed the Biblical command, "Honor thy father and thy mother," but overlooked Paul's statement in the New Testament: "For children ought not to lay up for the parents, but the parents for the children." (II Corinthians 12:14)

The author is also quite enthusiastic about retirement communities, where honoring old age is the rule, rather than youth worship. In contrast to this viewpoint, Miss Edna E. Nicholson¹ said that "Older people . . . usually greatly prefer to remain in the homes and neighborhoods where they have been living and where they have friends, relatives, and familiar surroundings. Comparatively few people have any desire to leave their own neighborhoods and move to special 'colonies' or 'projects' inhabited exclusively by people their own age.

On the whole, the book will be rather disappointing to those who expect to find in it a blueprint for a happy old age. It does, however, summarize very well the problems facing old people, and offers many helpful suggestions. Older people, like younger ones, are individuals, and no hard and fast rules or rules can be set for them to follow. Mr. Whitman quotes a number of times from the late Dr. Ed Stieglitz, but failed to quote one of his most pertinent observations: "The basic character or pattern of values and motivations does not change qualitatively with normal senescence. No new characteristics are introduced, but those which existed in youth become intensified and fixed." This same thought was expressed by Plato 24 centuries ago: "He who is of a calm and happy nature will hardly feel the pressure of age, but to him who is of an opposite disposition, youth and age are equally a burden."

Reference

1. Housing as a Basic Need of Senior Citizens, J.A.M.A. 165: 1058-1062 (Oct. 26) 1957.

The Relief of Symptoms, Ed. 2. By Walter Modell, M.D., F.A.C.P. 374 pages. Price, \$811.50. St. Louis: C. V. Mosby Co., 1961.

Dr. Modell is well prepared to write this book, and he has done a good job. The fact that this is the second edition attests to its usefulness. It will be refreshing to most veteran physicians to read Dr. Modell's statement that what he has learned from his patients ranks first in importance in preparing him to write the book. He stresses the importance of the history, and of the physician-patient relationship.

Most physicians will agree that the 27 symptoms he has selected for discussion comprise 95 per cent of those which bring patients to a doctor's office, and often many of these are combined—the combination giving a clue to the patient's personality. These symptoms are pain; angina and other vasospastic pain; gastrointestinal pain; headache; anxiety; insomnia; overeating; loss of appetite; constipation; diarrhea; gas; palpitations; edema; dyspnea; cough; fever; weakness and fatigue; nausea and vomiting; vertigo; itch; hiccups; unconsciousness; convulsions; skeletal muscle spasm; the menopause and

dysmenorrhea; frequency and dysuria; and jaundice.

The book is divided into three parts: (1) theory, (2) practice, and (3) counsel. By far the longest section is the one on practice, which lists the 27 symptoms discussed.

This reviewer, like almost any other veteran practitioner, would question a few of Dr. Modell's statements. In the treatment of diarrhea, for example, he questions whether pectin has any specific effect on diarrhea. A quarter of a century ago, Birnberg's treatment of diarrhea by feeding apple was quite popular, and was the basis of using pectin in diarrhea mixtures. This reviewer still finds scraped apple effective, and far more pleasant to swallow than the various pectin preparations on the market.

By far the best section in the book is the last chapter: "Cortisone and the Masking of Symptoms." The heading over the first two paragraphs is the theme of this section: "How not to relieve distress." This chapter should be read and re-read by every doctor who may be tempted to rely on cortisone or its modifications to relieve symptoms. Then Dr. Modell gives clearly the indications for the use of these agents. He omits, however, one condition in which its use is well justified—temporal arteritis. Here cortisone gives prompt relief, and may be discontinued after relief is obtained.

Dr. Modell states in the preface: "This book is addressed largely to medical students and to younger graduates whose philosophy and habits of practice have not yet 'set.'" It can be recommended heartily to these—and older physicians can also learn much from it.

Duke Professor Contributes Chapter to Army Medical Series

With the recent release of Preventive Medicine in World War II, Volume V, the name of Dr. David T. Smith, professor of microbiology and associate professor of medicine at Duke University, comes to the fore as one of its eminent contributors.

The volume, "Communicable Diseases Transmitted Through Contact or by Unknown Means," is the sixteenth in the series, "History of the Medical Department, U. S. Army, in World War II." Among the diseases which it covers in detail are actinomycosis, leprosy, leptospirosis, schistosomiasis, and yaws—as well as hookworm, fungus infections, impetigo, scabies, trachoma, infectious mononucleosis, poliomyelitis, Q fever, viral hepatitis, and venereal diseases.

Dr. Smith is author of the chapter dealing with actinomycosis. A member of the Board of Directors of the National Tuberculosis Associa-

tion, Dr. Smith is a former president of that group. A one-time winner of the Trudeau Award, he is a member of the American Association of Thoracic Surgery, the American Anatomical Association, the American Trudeau Society, and the American Association of Bacteriology and Pathology.

Dr. Smith, a graduate of the Johns Hopkins University School of Medicine in 1922, makes his home at Hope Valley in Durham.

New Film Explains Closed Chest Cardiac Massage Technique

American physicians, to whom our people turn for their medical care, now have an opportunity to strengthen the life-saving knowledge of others who are called on for emergency first-aid treatment.

"Life in Your Hands," a film produced by Smith Kline & French Laboratories in cooperation with The Johns Hopkins Medical Institutions explains the use of the closed chest cardiac massage technique. This new teaching aid is now available for use by physicians who conduct emergency resuscitation training programs for police, fire, industrial safety, professional lifeguard, and other rescue groups with which they are affiliated.

Prints of "Life in Your Hands," a 12-minute black-and-white film, now are available to assist other organized rescue personnel in learning this resuscitation technique. Physicians who conduct formal training programs for the members of such community rescue groups may request prints, on free loan or for purchase. Because of the need for careful supervision, prints are available only to physicians. Training leaflets also will be sent free of charge to physicians in charge of training courses when their film requests are received.

Requests for prints and literature should be addressed to: Medical Film Center, Smith Kline & French Laboratories, 1500 Spring Garden Street, Philadelphia 1, Pennsylvania.

Classified Advertisements

FOR SALE: Medical equipment to furnish complete doctor's office. Would like to sell this equipment in group. Please contact Mrs. R. C. Harrelson, Jr., Box 588, Tabor City, North Carolina.

FOR SALE: Equipment, instruments, operating lamps, suction pump, etc. of deceased Otolaryngologist, good value. P. O. Box 788, Statesville, North Carolina.

In Memoriam

W. Clyde Thomas, M.D.

Whereas, the people of Siler City and Chatham County have suffered a great loss in the death of W. Clyde Thomas, M.D., a practicing physician in Siler City since 1917 and

Whereas, W. Clyde Thomas served his county in the Armed Forces during World Wars I and II and brought distinction to himself and to his community both during his military services and in the long years of practice of his chosen profession; now be it

Resolved that the members of the medical staff of The Chatham Hospital, in recognition of the valued membership therein of W. Clyde Thomas, M.D., do hereby express their sympathy to all members of the family, and do hereby resolve that a copy of this resolution shall be presented to the family and to the **Chatham News**, as well as spread upon the minutes of the medical staff of the Chatham Hospital.

Harvey Lee Griffin, M.D.

The members of Randolph County Medical Society were saddened by the death of one of its members, Harvey Lee Griffin, on July 12, 1961. His death will be felt deeply by patients, friends and professional colleagues.

Dr. Griffin was born July 18, 1899, in Robeson County, the son of William A. and Etna Floyd Griffin.

He was graduated from Campbell College in 1920, Wake Forest College in 1924; and the Medical College of Virginia in 1926. Thereafter he began practice in Star, North Carolina, coming to Asheboro, in 1935 in partnership with Dr. Dempsey Barnes. They organized Griffin Clinic Hospital in 1938.

Dr. Griffin had many talents and interests. He was a member of the First Baptist Church, and

of the Masonic, the Shriner, and Elks organizations. He was also a member of the Campbell College enlargement committee.

He was an active member of several professional groups—including the American Medical Association, the American Academy of General Practice; a lifetime member of the North Carolina State Medical Society and Tri-State Medical Society; and the Randolph County Medical Society.

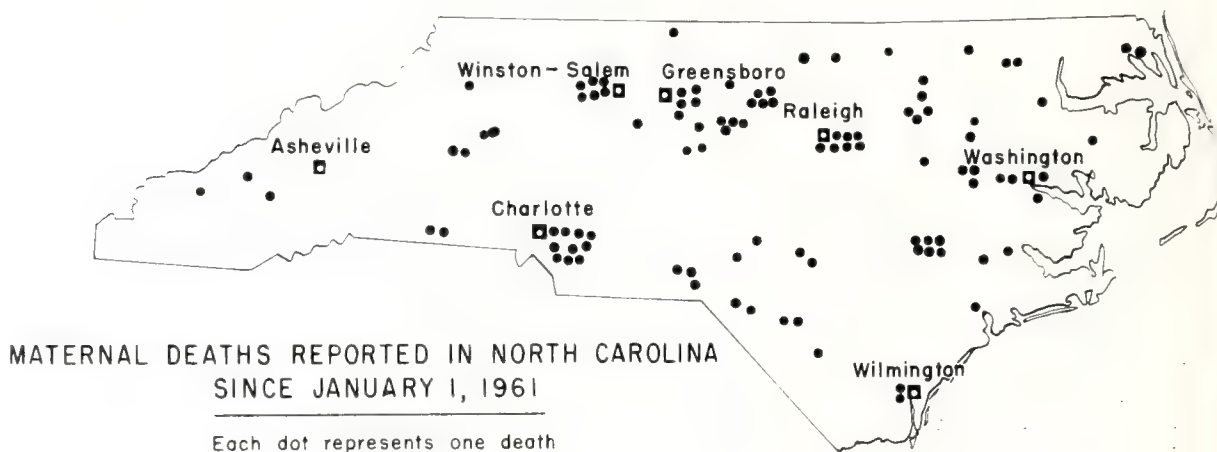
Since this Community and County Medical Society has lost a valued member, and each of us a professional friend,

Be it therefore resolved, that we, the members of the Randolph County Medical Society, express the deep sorrow and extend sympathy to the family of Dr. Harvey Lee Griffin; and that a copy of these resolutions be placed in the permanent files of the Society, a copy sent to his family, and a copy sent to the **North Carolina Medical Journal**.

Unknown Prescriptions

The thrust of invention and development has placed us all in an informational pressure cooker, and nowhere is this fact more clinically apparent than in the field of medicine. I am told by a doctor friend that seven out of ten prescriptions written today are for items unknown to medicine before World War II. The communications problems that result are more serious here than in any other area, since human health and life itself are involved.—David Sarnoff, RCA Board of Directors.

The number of children adopted each year during the past ten years has increased 34% according to **Patterns of Disease**, a Parke, Davis & Company publication for the medical profession. Among the reasons cited is the growing acceptance of adoption as a means of establishing a family.



NORTH CAROLINA

Medical Journal

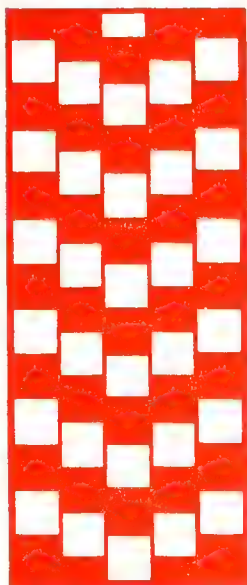


March, 1962
Vol. 23 No. 3

IN THIS ISSUE:

Program of the One Hundred Eighth Annual Meeting

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can parallel lines diverge?

Though the vertical lines *appear* to bow out at the bottom, the fact remains . . . they are parallel. Similarly, when facts regarding oral penicillins are rearranged, they may distort the true picture. Low price and high "blood levels" are important considerations, but it's what a drug *does* that counts.

V-Cillin K[®] achieves two to five times the serum levels of antibacterial activity (ABA) produced by oral penicillin G.¹ Moreover, it is highly stable in gastric acid and, therefore, more completely absorbed *even in the presence of food*. Your patient gets more dependable therapy for his money . . . and it's therapy he really needs.

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prescribe V-Cillin K in scored tablets of 125 and 250 mg. or V-Cillin K, Pediatric, in 40 and 80-cc.-size packages. Each 5-cc. teaspoonful contains 125 mg. crystalline potassium penicillin V.

V-Cillin K[®] (penicillin V potassium, Lilly)

1. Griffith, R. S.: Antibiotic Med. & Clin. Therapy, 7:129, 1960.

This is a reminder advertisement. For adequate information for use, please consult manufacturer's literature. Eli Lilly and Company, Indianapolis 6, Indiana.



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When it's more like "grippe" or "flu" than a simple cold, but an antibiotic is not indicated... prescribe NEW WIN-CODIN* Tablets



New Win-Codin tablets provide greater symptomatic relief from influenza, colds and sinusitis than do simple analgesic-antihistamine combinations. New Win-Codin tablets contain a full complement of the most effective agents available to relieve general discomfort, bring down fever and lessen congestive symptoms.

Each tablet contains:

Codeine phosphate 15 mg.—to relieve local and generalized pain and control dry cough

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Chlorpheniramine maleate 2 mg.—an antihistamine to shrink engorged membranes and lessen rhinorrhea

Ascorbic acid (vitamin C) 50 mg.—to increase resistance to infections†

New Win-Codin tablets will bring more comfort to many patients suffering from severe colds, influenza or sinusitis.

Average dose: Adults, 1 or 2 tablets three times daily; children 6 to 12 years, from ½ to 1 tablet three times daily.

Available in bottles of 100 (Class B narcotic).

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.

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NORTH CAROLINA MEDICAL JOURNAL

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NUMBER 3

The Relationship of Sudden Death to Lesions of the Cardiac Conduction Tissue

GEORGE LUMB, M.D., M.R.C.P.*

WILMINGTON

AND

R. S. SHACKLETT, M.D.†

NASHVILLE, TENNESSEE

A series of 260 human hearts were dissected and examined at autopsy in order to investigate the atrioventricular node and bundle of His and its branches. Abnormalities related to these structures were then analyzed.

Material

A constant plan of dissection and examination was followed for the complete series. The hearts were perfused with neutral formalin 18 to 24 hours before being dissected. In addition to routine examination of the heart and its blood supply, the interventricular septum was removed for study in the following manner. With both atria and ventricles opened, a vertical cut was made through the septum at the opening of the coronary sinus into the right atrium. This incision formed the posterior extent of the area to be examined. The anterior boundary was made with a cut parallel to the former through the anterior limit of the membranous septum. The upper margin of the block included the lower part of the interatrial septum and passed through the root of the aorta. The lower margin was parallel to this and included the upper third of the interventricular septum. The medial cusp

of the tricuspid valve was on the right side, and portions of the noncoronary cusp of the aorta and the aortic cusp of the mitral valves were included on the left side.

The tissue so removed included the atrioventricular node, bundle of His, and upper portions of the right and left bundle branches. According to its size, it was then subdivided into varying numbers of blocks. Four were normally taken from average-sized hearts. Hypertrophied hearts sometimes required more than this number, and the interventricular septum from children usually divided adequately into three blocks. Sections were stained by hematoxylin and eosin, and special stains for connective and elastic tissue, calcium, and amyloid were employed when required.

In the earlier part of the study, serial sections were made from each block in several cases. This led us to believe that such a procedure was not essential for pathologic diagnosis. The most posterior sections showed the atrioventricular node and commencement of the bundle of His above and to the right of the annulus fibrosus (fig. 1). In more anterior sections, the bundle could be traced through the annulus fibrosus until it lay below it and divided to form the right and left branches (fig. 2). In the most anterior sections, only the left bundle branch was seen as it lay below the endocardium of the septum of the left ventricle. We do not propose to describe in detail the normal appearances of the conduction tissue, as

This work supported by United States Public Health Service Grants No. H-3499 and H-5063.

*From the Department of Pathology, James Walker Memorial Hospital, Wilmington, North Carolina, and visiting associate professor, Department of Pathology, University of North Carolina School of Medicine, Chapel Hill.

†Assistant pathologist, Nashville General Hospital, Nashville, Tennessee.



Fig. 1. Anterior view of the posterior segment of the interventricular septum, showing the commencement of the bundle of His above the annulus fibrosus and to the right. (X-21)

this has been adequately summarized by numerous authors¹.

The cases were obtained at random from all age groups and included 176 males and 84 females; 70 specimens were from white and 190 from Negro patients. Thirty-five showed lesions which were considered to be affecting the conduction tissue to a significant degree. It is this group which will be analyzed here. A larger number revealed diffuse fibrosis related to the conduction tissue, and these will be investigated later. No hearts showing congenital cardiac defects were included in the series.

The conduction mechanism of the human heart still remains a controversial subject. It is not our purpose to discuss it here. It seems important, however, to state our belief in the existence of a constant, demonstrable anatomic structure which we believe is composed of cardiac muscle fibers. This serves as the mechanism of transference of impulses from the atria to the ventricles. The pathway runs normally through the sino-atrial node, the atrial myocardium, the atrioventricular node, the bundle of His, the bundle branches, and thence to the ventricular myocardium².

Thirty-five cases were selected from the whole group on the basis of lesions affecting the conduction tissue to an extent which indicated impairment of function. When the clinical histories and electrocardiographic

features were then studied, it was interesting to find that 25 of the patients had died suddenly, including 5 who were dead on arrival at the hospital. By sudden death is meant death occurring within five to six



Fig. 2. Anterior view of the antero-central segment of the interventricular septum, showing the bundle of His dividing into right and left bundle branches below the annulus fibrosus and to the left. (X 21)

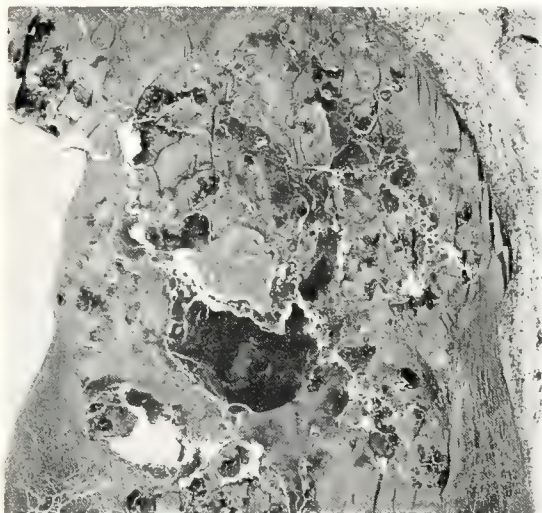


Fig. 3. Massive calcification of the upper part of the interventricular septum, with destruction of the conduction tissue. (X 21)

hours of the patient's arrival at the hospital or abruptly or unexpectedly during his hospital course.

Review of the 25 cases revealed the following facts: Cerebrovascular accident had occurred in 3 patients as a terminal event. Three cases were examples of endocardial fibroelastosis. Five showed evidence of acute infarction in areas of the heart other than the interventricular septum. In one there was a dissecting aneurysm of the ascending aorta, and in another chloral hydrate poisoning with terminal cardiac massage. All of these 13 cases, therefore, demonstrated pathologic processes which might have led to sudden death. It was thus impossible to assess the significance, if any, of the abnormalities of the conduction tissue in the final phase.

In the remaining 12 cases, however, there is considerable suspicion that a lesion of the conduction tissue was the precipitating factor in sudden death. They will be discussed in more detail in the following groups.

Group I Calcification

Calcification was present in three specimens. All three of these patients were old, and all had significant ventricular hypertrophy. Diastolic blood pressure was at hypertensive levels in 2 patients. One patient showed clinical evidence of a cerebrovascular accident, and one had been ad-

mitted to a mental hospital with a diagnosis of senile psychosis. One patient had a history of dizziness and falling. Although examination of the brain in all of these patients revealed a moderate degree of cerebral atherosclerosis, there was no evidence of hemorrhage, thrombosis, or infarction. Varying degrees of congestive cardiac failure were exhibited by all the patients in this group. All three died suddenly. Electrocardiograms showed right bundle branch block in 2 cases and a complete heart block in the third.

Microscopic examination of the interventricular septum in the 3 cases showed extensive deposits of calcium in the septum membranaceum, annulus fibrosus, and upper part of the muscular septum with direct involvement of the conduction tissue in each (fig. 3). Examination of the remainder of the hearts revealed only a mild degree of coronary artery atherosclerosis. It is difficult to explain the calcium deposition, therefore, entirely on the basis of ischemia.

Group III Myocarditis

The 3 patients in this group were all young children in whose hearts was a typical diffuse myocardial round-cell infiltration. It is of interest that the cellular infiltration was more intense in the upper part of the interventricular septum than in other areas of the heart. In each instance, diffuse involvement of the atrioventricular node area, bundle of His, and origin of the bundle branches was found. Mild interstitial pneumonia was thought to be present in 2 cases, but no pulmonary lesions could be found in the third. All the children died suddenly. One patient survived four hours after admission, and electrocardiograms showed very irregular complexes which were difficult to interpret, but atrioventricular dissociation was considered probable. The other 2 patients were dead on arrival at the hospital. It seems reasonable to suppose that interference with conduction may have played a major role in the cause of death.

Group III Amyloidosis

These were 2 patients in whom death was sudden and primary cardiac amyloidosis

was the only significant necropsy observation. One patient was in shock on arrival and died four hours later; the other was dead on arrival. In both instances large masses of amyloid substance confirmed by special stains were found completely replacing many portions of the bundle of His and partially destroying the atrioventricular node. Elsewhere in the hearts was the typical generalized distribution of amyloid, with particular involvement of the right atrial wall. It seems likely, however, that the conduction tissue lesion was responsible for the sudden death in both patients and for the atrioventricular block found by electrocardiography in one.

Group IV Hemorrhage

This patient was a 75 year old white woman who had sustained a fractured femur after a fall. She had apparently improved until three days after the bone was pinned, when a sudden drop in blood pressure occurred and she died immediately. No significant cause of death could be found other than a recent hemorrhage localized to the upper part of the interventricular septum, with destruction of the atrioventricular node and the proximal part of the bundle of His. The cause of the hemorrhage remains undetermined, although the possibility of fat embolization causing rupture of small vessels might be considered. It seems reasonable, however, to regard hemorrhage as the fatal mechanism in this case.

Group V Myocardial Infarct

The patient in this category died within a few hours of admission and showed a recent infarct confined to the upper part of the interventricular septum and affecting principally its anterior portion. Electrocardiograms showed second degree atrioventricular block with right bundle branch block. Cases where the myocardial infarct is confined to the upper part of the interventricular septum are of particular importance, because without careful dissection of the heart and examination of this area the infarct can be overlooked completely.



Fig. 4. An Aschoff body in the left bundle branch. (X 280)

Group VI Rheumatic Fever

This case was of interest, as the patient had walked into the hospital complaining only of mild dyspnea and some chest pain. He had not been examined previously. He was sent to the ward, and while a clinical history was being taken he sat up, coughed, and died immediately. Necropsy revealed rheumatic pancarditis with mild fibrinous pericarditis, early endocarditis with small vegetations on the mitral valves, but no apparent valvular stenosis or incompetence. A diffuse myocarditis was most marked in the interventricular septum. Vasculitis was marked in the region of the atrioventricular node, and typical Aschoff bodies were found directly involving the atrioventricular node, bundle of His, and left bundle branch (fig. 4).

Group VII Fibrosis

Considerable care was exercised in selecting the cases for inclusion in this group. A large number of hearts, particularly those from elderly patients, showed varying amounts of scattered fibrous tissue in the

interventricular septum, a finding which may be related to degenerative changes in the conduction tissue. Occasionally, small flecks of calcium may be mingled with the fibrous tissue. The cases included under this heading were those in which fibrosis was excessive, where it was confined largely to the upper part of the muscular interventricular septum, and also where the conduction tissue appeared to be unequivocally damaged. The case which is included as an example of sudden death was that of a patient who had sudden cardiac arrest and died during a prostatectomy. In the absence of any other significant abnormality at necropsy, the conduction tissue damage was considered to be a major factor in this patient's death. An electrocardiogram obtained before operation showed first degree heart block and right bundle branch block.

Discussion

These 12 cases seem to be examples of sudden death where the determining cause was related to a lesion of conduction tissue. Three were examples of massive myocardial calcification, 3 of myocarditis, and 2 of primary cardiac amyloidosis. In one instance there was unexplained hemorrhage in the atrioventricular node and bundle of His. Another showed a recent infarct confined to the upper part of the interventricular septum. Aschoff bodies were found in the conduction tissue in one, and in another, cardiac arrest occurred during an operation. Here a fibrotic lesion was found in the conduction tissue.

In all 12 cases, careful search at necropsy revealed no satisfactory cause of death outside the heart. It may be argued that the instances of amyloidosis and myocarditis (both nonspecific and rheumatic) represented generalized cardiac diseases. However, the manner of death, associated with the distribution of the pathologic lesions, suggested the likelihood that involvement of conduction tissue was significant.

Certain advantages result from a complete examination of the conduction tissue

in the heart. A more accurate correlation between the interpretation of the electrocardiograms and morphologic alterations is possible. In a significant number of cases it becomes possible to suggest more precisely the mechanism of death, a factor of particular importance in cases of sudden death, where determination of the cause might otherwise be impossible.

Summary

One hundred sixty human hearts representing all ages and both sexes have been examined with respect to the conduction mechanism. The findings in 23 cases of sudden death are reviewed, and 12 cases in which lesions of the conduction tissue were considered directly responsible for death are discussed in detail.

The importance of a careful study of the conduction tissue is stressed as an aid to establishing the cause of sudden death; the method of obtaining the tissue from the atrioventricular node, bundle of His, and bundle branches is described; and it is made clear that serial sections are not necessary in order to establish routine pathologic diagnoses.

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Management of the Cyclovertical Motor Anomalies

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Vertical deviations are frequently associated with horizontal strabismus, and a precise analysis of the vertical component is essential to proper management of these cases. Routine use of a standard method of examination (that described by Owens¹ is recommended) is helpful in the evaluation.

Before studying the deviation in the cardinal positions, a detailed history should be obtained and a complete ophthalmologic examination done in every case. If the deviation was acquired, an intracranial etiology must be considered.

Evaluation of the ocular motility begins with tests to determine the presence and amount of any vertical and horizontal deviation in the primary position while the patient fixates an object at 20 feet and again at 13 inches. Any difference noted in a vertical deviation when fixation is shifted from far to near is often quite helpful in differentiating weakness of an oblique muscle from that of a vertical rectus. We are now ready to consider four questions which must be answered in order to analyze a vertical muscle imbalance.

1. Is the deviation greater when fixation is far or near?
2. Is the deviation greater in gaze to the right or to the left?
3. Is the deviation greater in gaze up or down?
4. Is the deviation greater with the right or left eye fixing?

These questions lead to general rule number one: If the deviation is greater at distance, suspect weakness of a vertical rectus. If the deviation is greater at near, suspect weakness of an oblique muscle.

Owens considers the vertical muscles of the two eyes as constituting two teams. One team controls the vertical position of the

eyes in gaze to the right and is called the "right field vertical team." It consists of the vertical recti in the right eye and the superior and inferior obliques in the left eye. The "left field vertical team" controls vertical movements of the eyes in gaze to the left. This team consists of the vertical recti in the left eye and the obliques in the right eye. Therefore, if one can determine whether the vertical deviation is greater in gaze to the left or in gaze to the right, he can reduce the number of muscles to be considered from eight to four and his problem is immediately halved.

In order to answer the four questions necessary to identify the paretic vertical muscle, four tests are employed: (1) extent of ductions; (2) screen comitance test; (3) prism and cover test; (4) head tilt test.

Test 1: Ductions

Ductions are monocular movements and can be examined by covering one eye and directing the eye under investigation into the eight cardinal positions. If any limitation of ductions is present, it is quite easy to determine which muscle is weak. In the great majority of cases of vertical muscle imbalance, however, these movements are not limited. It is known that an extraocular muscle can normally move at least 100 Gm. of weight, and since the globe and its contents weigh only about 7 Gm., it is evident that an ocular muscle must be drastically weakened before any defect in duction is evident. If one waits for a limitation of ductions in order to diagnose a vertical muscle imbalance, he will miss at least 90 per cent of these deviations. Fortunately, even a subtle paresis can be easily detected by examining the binocular movements. In a patient with normal ductions, therefore, a second test must be used.

Test 2: Screen Concomitance Test

This test is performed by partially covering one eye in such a way that it cannot

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view the target although its movements can be observed by the examiner. In a patient with a slight paresis of the right superior rectus, the test will reveal an overshoot of the left inferior oblique, and often an overshoot of the right inferior rectus. These deviations can be diagrammed quickly by Owen's method.

Test 3: Prism and Cover Test

After the deviations have been determined by the screen comitance test, they must be accurately measured by the screen and prism method. For making these measurements, loose prisms are advised in order that both horizontal and vertical components can be neutralized. The prism should be kept perpendicular to the line of fixation. The Owens deviometer insures that the four diagnostic quadrants will be constant and standard, but it is not essential for office practice.

In making the measurements, fixation is first maintained with the right eye. This is done by placing the prisms in front of the right eye and the cover in front of the left eye at the beginning of each observation. Observations are made only on the movement of the *left* eye when the cover is shifted from the left to the right eye. Any movement occurring in the right eye when the cover is returned to the left eye is ignored. The prism which stops the movements of the left eye is recorded. In this way, the right eye is constantly used for fixation during the test.

Now the entire procedure is reversed and only movements of the right eye are watched. Prisms are changed appropriately until movements of the right eye are abolished.

The deviation will always be greater when the patient fixes with the eye harboring the weak muscle. This fact is explained by Hering's law, which states that the innervation for any ocular movement is supplied equally to both eyes and is determined by the fixing eye. When the eye on the side of the paretic muscle fixes, a greater innervation is required. This increased innervation is likewise sent to the normal yoke muscle, causing the overaction and greater deviation.

Test 4: Head Tilt Test

A quite helpful test in patients with vertical deviations is analysis of the tilt of the head. The best way to observe an ocular torticollis is to ask the patient to walk across the room, touch the muscle light, and return. Often a child with a head tilt has been told repeatedly by his mother to keep his head straight. He may remember this admonition in the doctor's office and thus obscure the normal posture during examination. When distracted by performing a specific task, he will often allow his head to assume its characteristic position.

The following point cannot be stressed too emphatically: In cyclovertical muscle palsies, it is *not* correct to say that the patient "has a head tilt to the left." The head is placed in position resulting from rotation around three principal axes. Thus the *face* may be turned to the right or the left around the *vertical axis*, the *chin* may be turned up or down around the *horizontal axis*, and the head may be tilted to the left or the right shoulder on the *anterior-posterior axis*. One should observe the patient carefully, therefore, noting whether the head is tilted left or right, the face turned right or left, and the chin held up or down. He should then promptly jot down these three observations. Mistakes often result from attempting to analyze the paretic muscle from observing the head tilt directly. If the information is recorded immediately, it can be analyzed carefully at leisure. Often old photographs are helpful in determining the age at which the onset of a head tilt occurred.

The head posture of a given muscle palsy is easily remembered. It is the position the head would assume if the paretic muscle were attached to the head in the same position that it occupies on the eye. Thus in the case of the left superior oblique, imagine the muscle attached to the left parietal region behind the equator. Place the right hand on the left side of the head and consider the right elbow as the functional origin—that is, the pulley. Simply pull with the right hand and the head will be placed in the position appropriate to paresis of the left

superior oblique—that is, with the head tilted to the right shoulder, the face turned to the left, and the chin depressed.

To recall all the characteristic head tilts, one need only remember the “26-53” rule. The two vertical recti insert at 26 degrees temporal to the midsagittal plane of the globe, and the two obliques insert at 53 degrees temporal to the midsagittal plane of the globe behind the equator. Placing one’s hand on the head in these positions and pulling will instantly reveal the appropriate tilt.

The characteristic head tilt does not develop in every muscle palsy. Rarely, the head may assume a position exactly opposite to that associated with the underlying palsy. This phenomenon—a paradoxical head tilt—is used to facilitate suppression, since, when it occurs, the double image will be as widely separated as possible. Although this situation is uncommon, it should be borne in mind.

The Bielschowsky (or forced head tilt) test is important in detecting paresis of a superior oblique muscle. In such an instance, the vertical deviation will increase when the head is placed on the shoulder of the same side of the higher eye. This phenomenon is explained on the basis of the vestibular reflexes. When the head is tilted to one side, the vertical corneal meridians tend to remain perpendicular to the ground. Thus when the head is tilted to the *left* shoulder, normally the *right* eye *extorts* and the *left* eye *intorts*. Intorsion of the left eye is accomplished by cocontraction of the left superior oblique and left superior rectus. When these muscles are normal in power, the elevating action of the left superior rectus is balanced by the depressing action of the left superior oblique, and vertical alignment of the eyes is maintained. If the left superior oblique is paretic, however, its counterbalancing action is absent, and the left eye will be elevated by the unopposed action of the normal superior rectus.

Dr. Walsh brought to my attention the value of the subjective Bielschowsky test. With a patient complaining of vertical diplopia, simply place a red glass before the

right eye and ask him to show with his fingers the distance between the double images. Ask him to maintain the distance with his fingers while one tilts his head first to the right and then to the left shoulder. The variation in the distance between his fingers is dramatic evidence of a positive test and reveals a superior oblique paresis instantly.

In general, objective tests are more useful in evaluating muscle anomalies than are subjective ones, since they can be used regardless of the presence of suppression or abnormal retinal correspondence. The subjective tests, however, are more useful in measuring small deviations and are quite helpful in assessing torsional components of the deviation. In my experience, the simplest subjective tests are the diplopia fields test using a red glass, and the Lancaster red-green test.

Characteristic Syndromes

The double-elevator syndromes

Five conditions compose the double elevator group of syndromes:

1. Congenital double elevator palsy.
2. Fracture of the orbital floor.
3. Ocular myasthenia gravis.
4. Thyrotropic exophthalmos.
5. Unilateral ophthalmoplegia (Parinaud’s syndrome).

The double elevator syndromes are characterized by inability to elevate one eye above the mid-line. The commonest cause is a congenital weakness of the elevator muscles (superior rectus and inferior oblique). The congenital type is at times associated with ptosis due to concomitant weakness of the levator muscle. Despite a marked vertical imbalance, an alternating strabismus is quite common in congenital double elevator palsy, and good vision in both eyes is the rule. Old photographs of the patient and a history of onset are helpful in detecting the condition.

An identical clinical picture, however, often follows fracture of the orbital floor with incarceration of the inferior rectus. A blunt or contusion injury to the face is often followed by vertical diplopia at varying intervals thereafter, usually within a few

days to several weeks. Since there is complete inability to elevate the eye, paresis of the elevator muscles is often suspected. The forced ductions test, however, reveals that the globe cannot be rotated up, and that rather than to a paresis of the superior rectus, the situation is due to incarceration of the inferior rectus and inferior oblique muscles in a splintered floor fracture. It is important to stress that careful roentgenograms often fail to show this defect, and the patients should be operated on promptly despite negative orbital films when the typical clinical findings are present. If two or more weeks elapse before the captured muscle is released, there is often little return of function. Hypalgnesia over the second trigeminal division and roentgen evidence of a cloudy maxillary antrum on the affected side are often noted in these cases. The affected pupil may be dilated owing to involvement of the pupillomotor fibers which pass through the branch of the oculomotor nerve to the inferior oblique muscle.

Dr. Frank Walsh stresses the point that every patient with diplopia or ptosis should have a prostigmine or tensilon test. He has seen two children who presented ptosis and inability to elevate an eye in whom, after an injection of tensilon, the lid shot up though a congenital double elevator palsy remained! It was later confirmed that these children had both congenital double elevator palsy and acquired ocular myasthenia gravis as well.

The fact that the elevator muscles are the extraocular muscles most commonly involved in both myasthenia gravis and thyroid ocular disease warrant the inclusion of these diseases on this list, although they are usually easily excluded by the use of the tensilon test and the Werner triiodothyronine suppression test.

Parinaud's supranuclear paralysis of vertical gaze is not uncommon, but in only one case have I encountered a unilateral lesion attributable to a supranuclear origin. The essential criterion for this diagnosis is an intact Bell's phenomenon.

In summary, by means of old photographs, forced ductions test, tensilon test, Werner test, and Bell's phenomenon, one

can usually easily differentiate the double elevator syndromes.

Superior rectus—superior oblique syndrome

Owens documented this common form of V syndrome esotropia in 1954, and presented the earliest and clearest explanation of the phenomenon that I know of. In this condition the superior rectus of one eye and superior oblique of the opposite eye are paretic. The resulting imbalance may be noted only in gaze to the right or left. It is more commonly bilateral, although often asymmetrical. The adducted eye is higher than the abducted eye, owing to overaction of the inferior rectus and contralateral inferior oblique. The V phenomenon is striking in these patients—that is, the eyes become progressively divergent on upward gaze. Normally the eyes are elevated by co-contraction of the superior recti and inferior obliques, and the adducting influence of the superior recti is balanced by the abducting influence of the inferior obliques. When the superior recti are paretic, however, the abducting action of the inferior obliques is unopposed, and the eyes become more divergent in upward gaze. The converse is true in downward gaze.

Inferior rectus—inferior oblique syndrome

In this syndrome the eyes become more divergent in downward gaze. The sign is especially marked when present in both right and left fields of gaze. As the adducting action of the paretic inferior recti is reduced, the unopposed abducting action of the superior obliques accounts for the A phenomenon noted.

In my experience the practical significance of the superior rectus—superior oblique insufficiency syndromes is that they are rather frequently associated with the childhood esotropias, and, when severe, account for some uncertainty in the surgical management of horizontal strabismus.

A further point worth mentioning is that if a vertical imbalance is first detected after surgical correction of an exotropia, weakness of an oblique muscle should be suspected. Likewise, if a vertical imbalance is first noted after operation for an esotropia,

paresis of a vertical rectus is usually responsible.

Brown's superior oblique tendon sheath syndrome

This syndrome closely resembles a congenital paresis of the inferior obliques, and the forced ductions test is necessary for their differentiation. The eye can be rotated up and inward if the inferior oblique is paretic, but not in the presence of Brown's syndrome.

The current consensus is that operation is usually inadvisable in the latter. I have encountered a true inferior oblique paresis as an isolated ocular finding in 2 patients with neurofibromatosis.

Surgical Treatment

Adler's table² is helpful in determining which muscles to operate on in vertical muscle palsies. I have used the following rules of thumb: (1) A full recession of the inferior oblique (to the vortex vein am-

pulla), which is about 10 mm., can correct 8-12 prism diopters. It is well known that resection of more than 3.5 mm. of a superior rectus may result in ptosis. Likewise, recession of a superior rectus exceeding this amount may produce a stare or lagophthalmos. I certainly prefer recession of the inferior oblique to myectomy. If the muscle is simply cut, reattachment often will occur, and the difficulty in this operation, as a rule, is undercorrection rather than overcorrection.

Summary

The diagnosis and management of the cyclovertical muscle anomalies have been discussed, with emphasis on topical diagnosis of head tilts, the subjective Bielschowsky test, and the differential diagnosis of the double elevator syndromes.

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It is well to remember that the patient's sensibilities are just as primitive as ever, that they have not changed along with medical science. Patients discern symptoms, fear them, resent them, react to them, and seek relief from them for the same old reasons that they did when symptom treatment was virtually all medicine could offer. If in the interest of a cure—which may be a long time coming—we ignore the patient's request for relief, and if sufficient alleviation of the symptom does not come directly or indirectly, we must expect that some of the less faithful, the less scientific, the less patient, will try to find relief elsewhere. Why else, in this area of science, this era of the triumphant cure, do the practices of the cultist and the charlatan still flourish?—Walter Modell in *Relief of Symptoms*, edition 2, Mosby, 1961 p. 15.

Trauma as a Cause of Infarction in the Lateral N. dulla (Wallenberg Syndrome)

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WINSTON-SALEM

Occlusion of the posterior inferior cerebellar artery is a common cause of infarction of the brain stem¹. While the most common etiologic basis of occlusion is atherosclerosis², other causes include emboli^{2b}, encephalitis, syphilis³, malalignment of the cervical vertebrae, neoplasms⁴, thromboangiitis obliterans⁵, angiography, and cranial trauma. The less common causes must be suspected in the young patient in whom vascular disease cannot be demonstrated. The following case of infarction secondary to trauma is believed to be unique.

Report of Case

A 6 year old white girl was seen in the emergency room of the North Carolina Baptist Hospital because of a head injury sustained in an automobile accident approximately three to four hours before admission. Details of the accident were not known except that the automobile in which the child was riding with her mother was struck by a truck and the patient was thrown from the car by the impact. She was promptly taken to a nearby hospital, where she was found to respond only to painful stimuli and to have extreme weakness on the left side. She was then transferred to this hospital.

The patient had always been in good health, with no serious illness or injury. On admission the blood pressure was 80 systolic, 50 diastolic, the pulse 120, and respiration 25.

Physical examination disclosed a well developed, well nourished girl who had multiple facial lacerations and a depressed fracture of the left zygoma. She was bleeding from the nose, mouth, and left ear. There was a large cephalohematoma over the right parietal and occipital regions. The pupils were equal and reacted to light. There seemed to be muscular weakness on the left side of the face, but this was difficult to assess because of the lacerations. Deep reflexes were absent. The plantar response was abnormal on the left side and normal on the right. In response to painful stimulation, the patient moved the right side of the body well, but there was only minimal movement on the left.

Roentgenograms of the skull revealed a long,

linear, moderately separated fracture of the right temporal, parietal, and occipital regions. After the roentgenograms were made, the patient was thought to show slight improvement in her general condition, and minimal improvement in the level of consciousness. She was returned to the emergency room, and the facial lacerations were sutured. Her condition then rapidly deteriorated; she became completely unresponsive and went into shock.

Bitemporal and biparietal trephinations revealed only contused brain tissue, more severe on the right. A right ventricular puncture yielded clear fluid under normal pressure. During the procedure the patient was given 500 cc. of blood and seemed to improve. The vital signs then remained stable until the evening of the following day, when her breathing became labored and death ensued.

Necropsy revealed, in addition to the skull fractures, two long jagged fractures extending across the base of the skull from the frontal pole into the sella turcica, and from the mid-portion of the middle fossa to the occipital pole.

The brain weighed 1300 Gm. There was generalized swelling, with minimal herniation of the right uncus, and more severe herniation of the left uncus compressing the left oculomotor nerve. No epidural or subdural hematoma was found. A zone of contusion extended along the left gyrus rectus. The cerebellar tonsils were minimally herniated and discolored red-brown. The vessels at the base of the brain were normal: the vertebral and posterior inferior cerebellar arteries were not occluded.

A prominent wedge-shaped zone of infarction, dark in color, extended along the right side of the medulla with the base of the wedge situated laterally. In addition, there were zones of fresh infarction in both occipital lobes and the cerebellar tonsils. Microscopically, the right side of the medulla contained a zone of infarction with a few macrophages and small foci of hemorrhage. A similar picture of fresh infarction was seen in the occipital lobes and cerebellum. The final diagnosis was infarction in the distribution of the posterior inferior cerebellar artery secondary to cranial trauma and cerebellar tonsillar herniation.

Discussion

Senator (1883)⁶ and Wallenberg (1895)⁷ are usually credited with the first descrip-

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tions of the symptom complex of occlusion of the posterior inferior cerebellar artery. of the posterior parts suggestive of this syndrome. Several ¹⁰ had appeared in the literature prior to that time. The earliest of these was a paper by Gaspard Vieusseux, a physician of Geneva⁹.

The usual clinical picture of occlusion of the posterior inferior cerebellar artery is striking and diagnostic. The anatomic lesion accounts for the symptoms. A brief review of the anatomy and circulation of the medulla oblongata, with a consideration of the structures involved, will aid in understanding the clinical picture.

Anatomy

The circulation of the medulla oblongata is composed of branches from the vertebral, anterior and posterior spinal, basilar, and posterior inferior cerebellar arteries. There is a great variation in the extent of the regions supplied by these vessels, as well as considerable overlapping of adjacent fields¹⁰. The rostral part of the medulla is supplied by small paramedian arteries, arising either from the basilar or terminal portion of the vertebral vessels. These supply the rostral part of the pyramids, the median portion of the inferior olive, the internal arcuate fibers forming the medial lemniscus, the medial longitudinal fasciculus, the tectospinal tract, and the hypoglossal nuclei. Short circumferential arteries arise from the basilar or vertebral vessels and from the posterior inferior cerebellar artery to supply a portion of the lateral part of the medulla, including much of the inferior olive; the lateral spinothalamic tracts; the rostral portion of the nucleus ambiguus; the caudal three fourths of the spinal tract and nucleus of the trigeminal nerve; part of the internal arcuate fibers of the ninth, tenth, and eleventh nerve; the medullary respiratory center; and the nuclei of the reticular formation.

The remainder of the circulation of the rostral part of the medulla is supplied by a long circumferential vessel, the posterior in-

ferior cerebellar artery. This vessel usually arises from the vertebral artery, courses a short distance along the medulla, and supplies a wedge of medullary tissue behind the olive. The size of the wedge differs from one case to another, and the base lies on the lateral surface of the medulla. This artery then continues to the inferior vermis of the cerebellum, supplying the uvula and nodulus and sending branches to the choroid plexus.

Interference with the function of the tracts and nuclei in the sector supplied by the posterior inferior cerebellar artery and its branches results in signs and symptoms called the lateral medullary syndrome^{2b}.

Symptoms

The onset of the disorder is usually sudden, without loss of consciousness. Involvement of fibers from the vestibular nucleus gives rise to dizziness, nystagmus, and falling toward the side of the lesion. The restiform body is affected, causing homolateral ataxia of the extremities. Involvement of the nucleus and descending root of the fifth nerve results in hypesthesia of the face, cornea, and mucous membrane on the same side. Implication of the spinothalamic tract produces a contralateral hypalgesia—the most constant feature of this syndrome. In many cases, the descending sympathetic fibers passing through the medulla are involved, giving rise to Horner's syndrome on the same side. The nucleus of the ninth nerve is involved, possibly causing a sensory disturbance in the pharynx and soft palate, and disturbance of taste in the posterior third of the tongue. Involvement of the tenth nerve causes a homolateral paralysis of the soft palate and muscles of deglutition, resulting in difficulty in swallowing and deviation of the uvula away from the side of the lesion.

This is the usual clinical picture; depending on variations in the distribution of the vessel and the nature of collateral circulation, some of these symptoms may be absent. Ataxia, dysphagia, and sensory changes, however, are almost invariably present.

Pathogenesis

As the literature on Wallenberg's syndrome grows, new theories regarding its production are proposed.

In some cases, the anatomic arrangement of the arterial system may be a factor. Ramamurthi¹¹, in reporting 22 cases of vascular occlusion in the posterior fossa, found that the posterior inferior cerebellar artery suffered occlusion more frequently than any other vessel of the hind brain. The posterior inferior cerebellar artery arises from the vertebral artery almost at a right angle. This method of branching, associated with the factors of turbulence and velocity of flow, could conceivably play a role in the development of thrombus, especially in a diseased vessel.

Other investigators¹², in studying cases of traumatic arterial lesions and cerebral thrombosis, have found the intima of the artery to be the layer most uniformly damaged. They have considered stretching and twisting of the vessel wall, as well as bruising of the arterial wall against adjacent bony structures, as etiologic mechanisms. Sudden pressure applied to an arterial wall may cause sufficient injury to the vasovorum to result in rupture of these small arteries, with hemorrhage into the vessel wall and eventual occlusion⁴. It has been shown that even simple contusion of normal arteries and veins may result in thrombosis of these vessels¹³.

Lindenberg¹⁴ has established the vulnerability of the posterior inferior cerebellar artery to compression at sites close to the posterior rim of the foramen magnum. Other investigators have demonstrated that circulation through one vertebral artery can be impaired by hyperextending and tilting the head to the opposite side¹⁵. Alterations of the vertebral column in the region of the craniospinal junction may be a critical point in the production of brain-stem ischemia¹⁶.

In the case reported here, the diagnosis of Wallenberg's syndrome was not made clinically because of the patient's condition. Necropsy, however, revealed the typical wedge-shaped lesion caused by circulatory failure in the distribution of the posterior

inferior cerebellar artery. The artery and its parent stem were not occluded by thrombus; hence the mechanism was related to a relative vascular insufficiency. Probably the ischemia in this case resulted from a combination of the forementioned mechanisms. A possible hypothetical sequence is presented.

With clinical and necropsy evidence of severe cranial trauma manifested by skull fractures, lacerations, semi-coma, and cerebral contusion, it is safe to assume that during the accident there was extreme turning and manipulation of the head, associated with either direct or indirect cerebral contusion. Either of these mechanisms could cause transient ischemia and infarction of the lateral part of the brain stem—the first by direct compression of the vertebral artery, and the second by arterial constriction or vasospasm following arterial contusion. A secondary mild hemorrhage into the infarcted region would explain the microscopic finding of hemorrhagic and anemic infarct.

Another possibility is that, following the traumatic concussion, cerebral swelling resulted in an increase in intracranial pressure and secondary tonsillar herniation. The herniated tonsils in turn compressed the vertebral arteries. Compromised blood flow in the vertebral circulation, further complicated by the mode of branching of the posterior inferior cerebellar artery from this vessel, could account for the transient ischemia and infarction in the lateral medullary region.

Trauma to any portion of the brain, if severe enough, may be complicated by extravasation of blood and cerebrospinal fluid into the damaged brain tissue. This extravasation results in an increase in the tissue pressure, which may be of sufficient degree to cause compression of blood vessels in the damaged region. If the decrease in blood flow is great enough, an ischemic infarct may result. There is sufficient evidence of cerebral trauma in this case to support such a postulate.

Summary

A case of infarction in the region supplied by the posterior inferior cerebellar artery is

described. Necropsy revealed an infarct in the distribution of the posterior inferior cerebellar artery, but the child was too ill to manifest the usual symptoms.

The literature on Wallenberg's syndrome is reviewed, and the possible mechanisms for producing this syndrome are discussed.

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LEGISLATIVE STRAIT JACKETS IN MEDICINE

Some of the suggestions (for "regulating" the prescription drug industry) could lead to such legislative strait jackets that the practicing physician would have no flexibility for individual judgment for his patients. More and more, medicine seems to be becoming a challenge to decide what not to do rather than what to do. If the trend continues the average doctor may worry more about how to extricate himself from a case with minimum personal risk than how to treat the sick person for maximum patient benefit.—Austin Smith, M.D., President, Pharmaceutical Manufacturers Association, to State Officers' Conference of American Academy of General Practice.

Current Concepts in Psychiatric Treatment

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I believe that any examination of current trends and problems in the treatment of mental illness must be viewed in historical perspective. Even ten years ago, psychiatric services were limited largely to segregated, custodial care of the mentally sick. Institutions specializing in custodial care—better known as “asylums” or referred to as “the big house on the hill”—were in many ways antitherapeutic and undoubtedly contributed to social crippling and further regression of patients. The nature of these hospitals, with their emphasis on social segregation and isolation of patients, increased the atmosphere of superstition, suspicion, and fear surrounding mental disease. In most instances only the most severely ill patients were admitted, so that chronic disability had set in. It is against this background of isolation, chronicity, and regression which these institutions so frequently bred that we must examine the problems that face us today and consider some solutions.

Three current trends which I think offer the greatest potential for mental health care are (1) the use of the therapeutic relationship throughout the hospital and at every level of patient care; (2) the emphasis on resocialization and rehabilitation; (3) the longitudinal concept of psychotherapy, or continuity of patient care, which includes many alternatives to hospitalization.

The Therapeutic Relationship

Doctor-Patient reactions

I would like to consider first the use of the doctor-patient relationship; for, in my opinion, this is the prototype on which all therapeutic relationships are based, and is a significant factor in successful psychiatric treatment.

Several factors bear on the physician's constructive management of any particular patient's diagnostic and therapeutic prob-

lems. Not the least of these are the many technical skills which he commands. Also of considerable importance are the attitudes which he develops toward the patient, since these may enhance or interfere with his technical skills.

In this discussion I want to focus on attitudes which may develop in the doctor-patient relationship, and in particular on the doctor's response to the patient. Personality deficits in the doctor *per se* may lead him to express, in dealing with his patients, such untoward reactions as inflexibility, overidentification, undue authoritarianism, withdrawal, arrogance, and even rejection. In our work with medical students, residents, nurses, and other mental health workers, however, we have observed that these attitudes come usually not as the result of personality defects, but rather from failure to understand the reciprocal nature of the doctor-patient relationship.

For example, the appeal of a very dependent patient may lead the untutored student to overtreat him or to become authoritarian and managerial, thereby reinforcing the undue dependency or docility of the patient. The competitive patient may evoke rivalrous responses and the interview or treatment process become an unproductive tug of war. The blunt-aggressive patient may evoke fear or anger with resulting counteraggression which sabotages the treatment process by leading the student to express his anger or withdraw from the relationship.

The point is illustrated by a film sequence which shows a student interviewing a woman admitted to a state hospital. She was angry, suspicious, and blunt. The student initially felt challenged, then a little fearful, and finally irritated.

We believe that the student's prolonged, fearful, and irritated reaction to this woman only reinforced her pattern of hostility and suspicion and forestalled the development of rapport. He not only allowed the hos-

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tility to remain centered on himself throughout the interview, but responded with counteraggression; and he frequently asserted his authority in an effort to force the patient into the usual doctor-patient relationship, in which authority is implicit with the doctor, who customarily uses it in a benevolent, helpful manner.

Any patient who seeks a doctor, whether it be for asthma, urticaria, tuberculosis, injury, or anxiety reaction, seeks an authority—an expert in medical matters. He brings to the doctor certain attitudes not only about authority, but also about the dependency that his illness imposes. These attitudes may be rational or irrational, often depending on experiences during infancy or childhood. If the patient was loved and secure, the authority and dependency will be less threatening; if he was insecure and unloved, the dependency and authority will trouble him.

Many patients exhibit a positive type of dependency. They are willing to accept the temporary loss of independence that illness brings, and realistically rely on the doctor during this period. Other patients demonstrate a pattern of excessive dependency; the care and attention they receive during illness becomes more important to them than health and independence. It is possible for the student-physician to be oversolicitous and to overtreat these patients initially, thereby reinforcing their excessive needs. In time, however, their demands may become great enough to move him to irritation and anger or withdrawal and rejection.

Still other patients, from fear and shame, refuse to accept the dependency enforced by illness. These are the most puzzling and usually the most difficult to treat. In this group we find patients who deny their illness or make light of their symptoms. Others rebel and refuse to accept bed rest, medication, or other medical advice. Still others become openly angry, unduly depressed, or anxious about their illness. Such responses naturally evoke counter-responses in the doctor. He may become irritated with or reject the rebellious ones; he may attempt to enforce his authority, usually to no avail, with the angry ones; or he may

become anxious and unsure of his skill with the anxious, demanding ones.

The mature physician becomes flexible and empathic in working with the many and diverse attitudes that he meets in his patients every day. He accepts his own reactions, but remains objective without becoming aloof. The neophyte, however, often lets his own reactions, which are natural and to be expected, interfere with the most constructive management of the patient.

A second film sequence shows the same doctor and the same blunt-aggressive patient portrayed in the first. In this sequence, however, the interview runs a different course. It is more empathic and constructive because the doctor quickly recognizes his own feelings of irritation and fear, but does not allow them to dominate the interview. He does not respond to the patient's angry outburst as a personal affront; his calm acceptance allows the patient to bring out significant material.

We have pointed out that the impact of the patient on the doctor may provoke counterfeelings that interfere with proper medical management. By recognizing his different feelings about every patient, the student develops more flexibility in dealing with the many and diverse relationships which he encounters in the practice of medicine. This knowledge of the reciprocal nature of the doctor-patient relationship, we believe, prevents early untoward responses from becoming chronic, defensive patterns in working with patients. To us, it is important for the student to learn as early as possible both the variety of relationships that patients establish with him, as well as his own reactions to patients. It is important to know oneself, because such knowledge helps the patient.

The therapeutic community

This concept of the therapeutic doctor-patient relationship has recently been expanded into the concept of the therapeutic community or atmosphere, wherein the patient's interpersonal relationships with all hospital personnel are intended to produce minimal anxiety and maximal support. Hospitalization, along with other benefits,

should teach him to live more effectively with other people. Hospital personnel, however, need to know how to react constructively.

To the above end we are employing techniques and methods similar to those described earlier in connection with teaching all our mental health workers, not psychotherapy, but the therapeutic value of constructive relationships. Many of our hospitals now have in-service training programs which aim to maximize the therapeutic potential of all hospital personnel by focusing on the patient-personnel relationship. Through these programs we believe we are employing our existing personnel more effectively and getting far more "therapeutic mileage" from them.

Rehabilitation and Resocialization

The second of today's trends concerns resocialization and rehabilitation. Many of our current problems stem from the conversion of custodial institutions to hospitals with intensive and effective treatment programs. The period of hospitalization is considerably shorter for the majority of patients. Symptoms abate much more quickly through the energetic use of the psychotropic drugs and somatic types of therapy. There is better application of psychiatric principles in individual and group therapy; there are increased numbers of trained personnel; and many patients are seeking treatment earlier, so that there is less chronicity and regression to deal with. All these and other factors have contributed to the amazing fact that today 80 to 85 per cent of first-admission patients are ready to leave the hospital in less than 90 days as far as intensive treatment is concerned.

We know from our high rate of readmissions, however, that many patients are not able to withstand the stress of returning to jobs, to family, and to their old social environment. We know that in spite of the fact that the symptoms are not themselves disabling at the time of discharge, the patient is not rehabilitated, not resocialized. A number of solutions have been proposed, but at this time I would like to mention

only one which seems to offer considerable promise—vocational rehabilitation.

The attitude of the past two decades decreed absolutely no work for patients in psychiatric hospitals. Many of us now believe, however, that work not only has cultural value, but also is an integral part of treatment. The recent emphasis on vocational rehabilitation has led to the organization of programs which include not only in-hospital services, but extend to the community as well. Many psychiatric hospitals have added a rehabilitation director who is responsible for the patient's social, recreational, and vocational programs. The main goals of these programs are resocialization, retraining, and rehabilitation; and they include counseling and work programs in the hospital, with emphasis on individual evaluation and vocational training. To be more effective, they should also offer follow-up services for the discharged patient, including job placement and supervision. The rehabilitative or transitional program emphasizes a somewhat sheltered, protected environment temporarily, with job placement and continuing counseling.

We are in the process of planning, with matching federal funds, a five-year vocational rehabilitation program in North Carolina. Eventually we hope that this many-faceted program will come to serve the vocational rehabilitation needs of the mentally ill and retarded throughout the state, both in and out of the hospital.

Continuity of Patient Care

In the past five years the admission rate of our state psychiatric hospitals has increased 106 per cent. This startling fact leads me to the third trend—that is, the longitudinal concept of treatment, or continuity of patient care. This concept includes alternatives to hospitalization. The idea is not a new one in medical practice of course, but it is a new application in mental health. It makes the hospital only one of many resources available to the mentally sick, and serves as another step in bringing the hospitals and their patients out of isolation into the community.

There are many alternatives to hospital-

ization in our state institutions. These include hospitalization in psychiatric units of general hospitals; day and night hospital programs; half-way houses; nursing homes; family care; foster homes; homemaker services; outpatient clinics both in psychiatric hospitals and in the community mental health centers; and coordinated close relations between psychiatric hospitals and family physicians, and between the hospitals and public health physicians who work effectively with discharged indigent patients.

One important alternative to hospitalization in a state psychiatric institution is the use of psychiatric wards in general hospitals. This is a facility in North Carolina which needs greater emphasis and use. As more psychiatrists are trained and enter private practice, we find more general hospitals willing to make facilities available for the treatment of private patients. Hospitalization in a general hospital is usually shorter and involves no commitment, so there is less social disruption for patients and their families. Patients are often more amenable to entering a general hospital and more receptive to treatment.

We know from experience that early diagnosis and intensive treatment at a general hospital eliminates the need for many patients to be transferred to state psychiatric institutions. At present some of our staff physicians visit the outpatient facilities of general hospitals, not only to follow patients after discharge from the state hospital, but to provide pre-admission screening to others, and to still others, outpatient treatment that may forestall hospitalization. As our hospital staffs grow and the number of psychiatrists in private practice increase, we hope that more physicians can work in

the outpatient departments of general hospitals throughout the state, performing follow-up services and pre-admission evaluation. We believe that these community endeavors help bring the large psychiatric hospital out of isolation, particularly medical isolation.

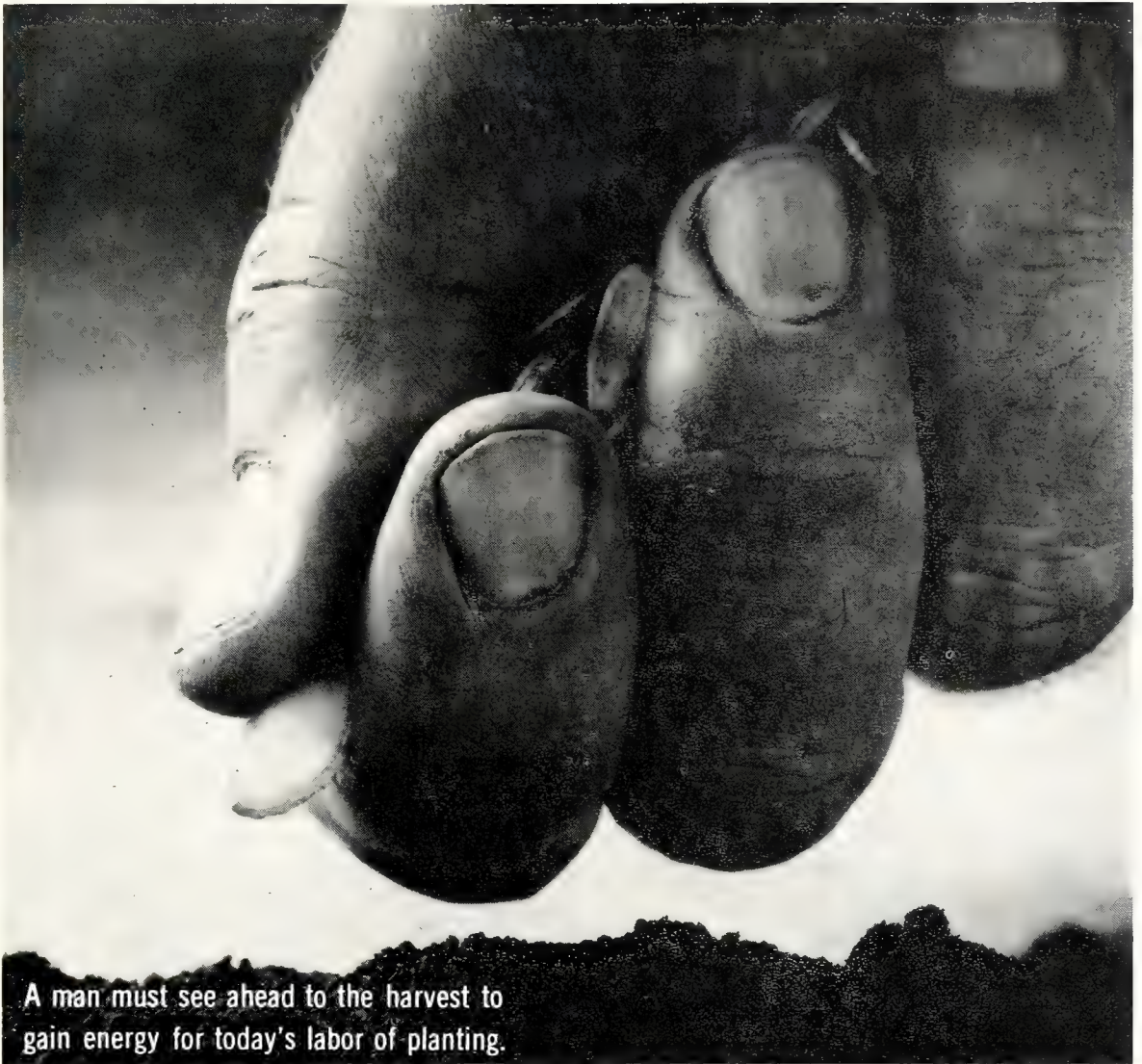
Another community service is provided through the mental health clinics. These facilities should, and usually do, emphasize not only work with patients, but also work with families. A patient's breakdown is often part of a major domestic struggle, the patient being the victim of disturbances, feuds, and incompatibilities among other members of the family, making it necessary to bring the entire group into the therapeutic process. The beneficial effects of hospitalization and the total plan of treatment may be vitiated unless this is done.

All the programs and facilities I have mentioned have in common the goal of providing mental health services which are fully integrated into, and are a regular and continuing part of, the community medical services.

Summary

The most constructive trends in our current mental health picture have to do with the increasing knowledge and use of therapeutic relationships; the increasing use of rehabilitation programs with vocational, domestic, social, recreational, community, and educational aspects; and the growing emphasis on alternatives to hospitalization, or continuity of patient care, of which the psychiatric hospital is only one part.

The development of these trends will be a further step toward more complete and enlightened mental health care in North Carolina.



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5,000	7,500 to 15,000	75.00 Weekly	114.00	57.50	152.00	76.00
5,000	10,000 to 20,000	100.00 Weekly	150.00	75.50	200.00	100.00
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Autopsy Incidence of Cholelithiasis in a General Hospital

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AND

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DURHAM

The decision for or against elective cholecystectomy is sometimes difficult. An accurate report on the incidence of cholelithiasis at autopsy would be helpful in showing how many patients who die have incidental gallstones and how many die because of gallstones. Although there have been several well documented reports¹ from this and other countries on the incidence of gallstones, their frequency in an active community hospital would seem to be of added value.

Method

The autopsy reports at Watt Hospital, Durham, North Carolina, were reviewed from 1932 to 1959. During this period there were 2120 autopsies. Since Watts is a community hospital which receives traumatic and coroner's cases, these cases are thought to represent a cross section of all Caucasian deaths in this community. Only patients past 60 years of age were studied. The cases were analyzed by age, sex, incidence of cholelithiasis, history of cholecystectomy, and cause of death.

Results

Autopsies were performed on 651 patients past the age of 60 during this 27-year period. Thirty-six patients who had had a cholecystectomy were excluded from the statistical study. Twenty-three per cent of all the subjects over the age of 60 had cholelithiasis. The incidence is presented by age and sex in tables 1 and 2.

Deaths that, in our opinion, were the result of cholelithiasis are presented in table 3A. Those in which its role is equivocal are shown in section B. Table 3C represents a 60 year old male who died of a pulmonary

infarction following cholecystectomy. This is the only death following elective cholecystectomy in this series.

Table 1

Incidence of Cholelithiasis by Sex

Sex	No. Patients	No. with Stones	Per cent with Stones
Male	380	76	20
Female	235	66	28
Total	615	142	23

Table 2

Incidence of Cholelithiasis by Age

Age	Number	Number with Stones	Per cent with Stones
60-69	268	54	20
70-79	248	67	27
80-89	99	21	21
Total	615	142	23

Discussion

An analysis of the incidence of cholelithiasis at autopsy in a community hospital probably reflects the true incidence of gallstones in this section of North Carolina. If this comparatively small number of patients may be used in a statistical analysis, it is seen that a significant number of patients died as the result of this condition.

The majority of authors agree that cholecystectomy should be carried out for the patient who has symptomatic gallstones. The disagreement arises over the asymptomatic cases. Some state that it is necessary to operate only in the presence of symptoms in order to protect the patient from such serious complications of cholelithiasis as acute cholecystitis and choledocholithiasis. Lund², however, in a recent review pointed out that about 25 per cent of patients having complications of cholelithiasis were previously asymptomatic. It would seem that if one followed the policy of electing cholecystectomy only when symptoms are present,

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Table 3
Causes of Death Related to Extrahepatic Biliary System

Causes of Death	No. Patients	Percent. of all Patients with Cholelithiasis
A. Directly related to cholelithiasis		
Acute cholecystitis	4	
Cholelithiasis	8	
Perforation of the gallbladder	3	
Total	15	10
B. Probably related to cholelithiasis		
Carcinoma of the gallbladder	2	
Carcinoma of the bile duct	5	
Pancreatitis	1*	
Carcinoma of the liver	1	
Total	9	6
C. Cholecystectomy	1	1

*No stones in common duct

a significant number of patients would succumb to the complications of cholelithiasis. In addition, if elective cholecystectomy is postponed until symptoms develop, the patient will be older and the operative risk greater.

These general impressions may be woven into a case for elective cholecystectomy. From the foregoing results we can predict that of every 1,000 Caucasians over the age of 60 who die in this hospital, 230 will have gallstones. Twenty-three of the patients will have died as the direct result of the stones. Had an elective cholecystectomy been done in the 230 patients with stones, we would expect a mortality of not greater than 3 per cent*, or 7 deaths. If elective cholecystectomy had been done, these statistics suggest

that the lives of 16 patients would have been saved.

Summary

- 1. Two thousand two hundred sixteen (2216) autopsies performed at a community hospital were reviewed, and 615 patients past the age of 60 who had not had a cholecystectomy were studied.
- 2. One hundred forty-two, or 23 per cent, of the 615 patients had cholelithiasis. One out of every 10 died as a result of the gallstones. In an additional 6 per cent, gallstones may have contributed to death.
- 3. The conclusion is that these data support the principle of elective cholecystectomy for cholelithiasis regardless of the presence or absence of symptoms.

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At Watts Hospital from 1942 to 1951, 573 cholecystectomies for acute and chronic cholecystitis were performed. Seven patients died following operation, a mortality of 1.2 per cent. The mortality of 3 per cent is used in this paper as it is felt it more accurately represents the age group under discussion and is more in keeping with reports of larger groups of patients. We would hope that elective cholecystectomy could be performed in the younger age group with a mortality of 0.5 per cent or less.

Systemic Chemotherapy for Cancer

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CHARLOTTE

The evaluation of results in any form of cancer therapy is difficult to tabulate, since no specific treatment has yet been devised. The standard forms of therapy—namely, surgical removal, irradiation, and chemotherapy—leave much to be desired. All surgeons take pleasure in seeing their so-called “cures” return five or more years after operation, still in good health. For the most part, however, the treatment of cancer consists of dealing with frightened, sick patients suffering from a progressive, fatal disease. Chemotherapy offers, if nothing else, some measure of hope and encouragement to both patient and doctor, and indeed an occasional gratifying result is obtained.

The present study is based on the clinical use of systemic chemotherapy in 103 patients. The majority of these cases were treated with nitrogen mustard. The largest group suffered from bronchogenic carcinoma, but patients with a variety of malignant tumors were treated.

Nitrogen Mustard

The standard dosage schedule of nitrogen mustard has generally been the intravenous administration of 0.4 mg. per kilogram of body weight in four divided doses given on successive days. In the past few years we have given the full dosage in one intravenous injection. The patients suffered only one episode of nausea and vomiting, and, as far as we could determine, the degree of palliation was just as effective as when the dosage was divided.

Treatment with nitrogen mustard has been repeated in individual patients as many as nine times, spaced one to three months apart. Such heavy courses of the drug have caused no fatalities, although transient leukopenia has been frequent. Moderate leukopenia is not to be feared unduly, as there seems to be some correla-

tion between the lowering of the white blood cell count and the therapeutic effect on the tumor.

Results

Forty-six patients with bronchogenic carcinoma treated with nitrogen mustard comprise the largest group in our series. Twenty-three (or exactly half) had lung resections, while the remaining cases were inoperable or non-resectable. Of the 23 patients undergoing resection, 13 have shown no recurrence one to three years after operation. Five have died within six months to three years following resection, and 5 have shown recurrence within three years. Eleven of the 23 patients who did not have resections are known to have died within three years, and in 7 the disease has progressed. Five patients, however, showed no progression for six months to one year.

Those patients who received surgical treatment, whether resection or some other procedure, received their first course of mustard intravenously at the completion of the operation while still under anesthesia. The nausea they encountered was little more than the anesthetic itself might produce. No difficulty with wound-healing was noted.

We are unable to make definite conclusions as to whether the addition of chemotherapy to resection has improved the prognosis in bronchogenic carcinoma. One would hope that chemotherapy might be useful in the patient who has a few viable cancer cells left in his body following resection.

Relief of certain symptoms has been noted in a few patients with advanced carcinoma. Cough, pain, and small cutaneous metastases have improved or disappeared under mustard therapy. We have never seen a large, bulky lung cancer decrease in size following the administration of this drug.

The sick, rapidly failing patient with cachexia, anorexia, or liver metastases has usually been made more miserable by it. We no longer give it to these patients. In fact, the patient who is systemically ill with cancer will himself often refuse more treatment.

Patients with miscellaneous malignant growths, including cancer of the esophagus, stomach, melanoma, and malignant mesothelioma, have shown no worth-while benefits from mustard therapy. Patients with Hodgkin's disease, although difficult to evaluate, have manifested a decrease in nodal enlargement, increased weight, and a feeling of well-being. Localized Hodgkin's disease, particularly the extra-abdominal forms, is probably better treated with irradiation than with mustard.

Toxicity

The toxic effects of nitrogen mustard encountered in this series were nausea and vomiting (and these were universal), transient leukopenia, loss of appetite, and diarrhea. The nausea and vomiting usually cleared in a matter of hours, but an occasional patient remained nauseated and anorexic for several days. Antiemetics, sedation, and an empty stomach, while helpful, did not prevent nausea after mustard therapy.

5-Fluorouracil

Experience with 5-fluorouracil (5-FU) has been limited in this series, but some interesting results have been encountered. This drug has an affinity for intestinal mucosa, and some of the better results have been obtained in the treatment of cancer of the colon. 5-FU has also afforded dramatic improvement in some breast cancers. The drug has been generally ineffective in other forms of malignancy, and Dr. Curreri¹, of the University of Wisconsin, has requested us to limit its use to the treatment of cancers of the breast and colon. He has encountered some encouraging results in treating lung cancer with a combination of 5-FU and roentgen therapy.

The treatment schedule with 5-FU is as follows: Fifteen milligrams per kilogram of

body weight daily is given intravenously for five days. Then a day of rest is followed by a course of 5-fluorouracil, 7.5 mg. per kilogram of body weight every other day for two to four treatments. Treatment is repeated every 28 days if toxic symptoms are not severe. The ideal weight is used to calculate dosage in obese patients.

5-FU produces leukopenia more often than does mustard. The drop in the white blood cell count is usually encountered 9 to 14 days after the first injection. If stomatitis occurs, it is a signal to stop treatment. Dermatitis, diarrhea, nausea, and vomiting may occur. Loss of hair is noted in 10 per cent of the patients receiving 5-FU. Women, particularly, should be warned of this possibility.

Certain patients are poor risks for treatment with 5-FU. This group includes those with (1) cachexia; (2) a history of wide pelvic irradiation; (3) recent treatment with alkylating agents (mustard); (4) widespread invasion of bone marrow by tumor; (5) extensive liver impairment, with jaundice.

Poor risk patients can be treated with an abbreviated schedule—15 mg. per kilogram of body weight daily for three days and 7.5 mg. per kilogram once on the fifth day.

Results

In the present series of 13 patients treated with 5-FU, 10 had metastatic breast cancer. One of these showed marked clearing of the cutaneous nodules and ulcerations on the chest wall. Three were relieved of back pain produced by spinal metastases, and one showed clearing of lung metastases. Five patients with breast cancer experienced no benefit. Three cases of widespread cancer of the colon were treated with the drug. Two patients noted no relief. In one there was a striking reduction of a large abdominal mass.

All patients receiving 5-FU had transient leukopenia (700 to 3000 white blood cells). Several patients were isolated and given antibiotics to prevent overwhelming infections. One woman lost her hair, and another noted that she no longer had to shave her legs.

5-Fluorodeoxyuridine

5-Fluorodeoxyuridine (5-FUDR) is somewhat similar to 5-FU, but apparently is more effective and less toxic. The dosage is exactly twice that of 5-FU. We have treated only one patient with 5-FUDR, and it is still too early to evaluate the results.

Velban

Velban, an extract of the periwinkle plant, is an antimetabolite, but its action is not well understood. Our single experience with this drug was in the treatment of a young man with Hodgkin's disease. The patient had daily fever which did not respond to nitrogen mustard. He was given Velban, 0.1 mg. per kilogram of body weight intravenously, with almost immediate disappearance of fever. He is now on maintenance doses of 0.1 to 0.2 mg. per kilogram every seven to 10 days. He is working full time and feels well.

Summary

At present there is a place for systemic chemotherapy in the treatment of cancer. Drug treatment occasionally gives some measure of relief and offers the patient something to cling to. One should, however, realize the limitations of these drugs and use them judiciously. No one is benefited if the physician is overzealous in attempting to eradicate the lesion and forgets to comfort the patient.

Surgeons have, for the most part, left this form of treatment in the hands of the internists. Or perhaps the internists have taken it over by the surgeons' default. We would strongly urge surgeons, who are more intimately acquainted with malignant disease than are internists, to add chemotherapy to their armamentarium. New and better antineoplastic agents will be appearing, and when a truly satisfactory one is found, surgeons should be prepared to use it effectively.

Reference

1. Current, A. R.; Personal communication.

Report from The Duke University Poison Control Center

JAY M. ARENA, M.D.

DIRECTOR

NAPHTHALENE

Naphthalene, a constituent of coal tar, is a white scaly powder that volatilizes easily at ordinary temperature. It is used as a moth repellent in the form of moth balls, moth flakes, deodorant cakes, and so forth. It has been used in the past as an antiseptic and anthelmintic. It plays an important role in the chemical industry as a synthetic intermediate.

The toxicity of naphthalene is not generally appreciated, so that it is often left around for infants and children to ingest in the belief that it is candy. The result can be a severe and rapidly progressive hemolytic anemia. Although naphthalene poisoning has been reported abroad for some 50 years, it has just lately attracted interest in this country. The cases appearing in the medical literature are few, but there are many which have not been reported. The lethal dose of ingested naphthalene is approximately 2 Gm. Only recently has the hazard of naphthalene poisoning from transcutaneous absorption and from inhalation of its vapors been reported. It is not generally known to parents or homemakers that naphthalene is not appreciably soluble in water and may remain in a garment or blanket in spite of thorough washing. The fact that the chemical is very soluble in oil makes the storing of baby clothes in naphthalene balls or crystals especially dangerous because the oil commonly rubbed on the skin of infants acts as a solvent for the toxic substance, which can then be absorbed through the child's skin.

Naphthalene itself is not hemolytic, either when injected directly into the blood stream or when added to a suspension of erythrocytes; but its metabolites appear to have hemolytic properties. Thus, alpha and beta naphthols and naphthoquinones have been isolated from the urine of a patient with

severe hemolytic anemia presumably caused by moth balls, and of these four compounds only alpha naphthol was hemolytic *in vivo*. *In vitro*, all were hemolytic, the naphthols more than the naphthoquinones.

Naphthalene is absorbed from the intestines, but the amounts necessary to induce hemolysis are unknown and apparently are subject to great individual variation. One child had apparently been ingesting pure naphthalene for a period of one year before the development of the acute toxic effects. Following ingestion, naphthalene is partly excreted in bile and partly oxidized to a number of substances (such as those above) which are conjugated to glycuronic, mercapturic, and sulfuric acids and excreted in the urine. Some of the metabolites also enter the circulation and cause hemolysis, apparently the result of direct action upon the red cell.

Hemolysis does not occur until three to seven days after ingestion. The symptomatology is that associated with any acute and rapid destruction of red blood cells. Premonitory symptoms include lethargy, abdominal pain, diarrhea, anorexia, vomiting, and headache. Children with naphthalene poisoning are listless, with marked pallor, and often so acutely ill as to constitute medical emergencies. Fever is usually present. Jaundice is absent or slight, the liver moderately enlarged, and the spleen generally is not palpable.

The urine is dark or port wine in color, and as a rule free of red blood cells; albumin and casts are usually present. Early in the course of the illness the urine contains an odor of moth balls and gives a positive reaction for hemoglobin.

Anemia is usually profound. An examination of the blood smear will show anisocytosis, microspherocytosis, polychromatophilia, and fragmentation of erythrocytes with the appearance of irregular, jagged borders to the red cells. The hemoglobin is concentrated to one side of the red cell. Heinz bodies can be demonstrated in the red cells at an early stage. (These are minute, peripheral particles that stain with cresyl blue and are numerous just before the hemoglobin falls in hemolytic anemia due to chemical poisoning. Presumably they consist of denatured proteins and lipoproteins produced by irreversible injury of red blood cells). Hemoglobinemia and hemoglobinuria are present in most cases, but there is no rise in methemoglobin or sulfhemoglobin. Tests for isohemagglutinins, cold agglutinins and cold and warm hemolysins are negative. The fragility of the erythrocytes to hyponic saline is increased.

Treatment

If the chemical is ingested remove immediately with gastric lavage or an emetic. Follow by a saline cathartic. Avoid milk, oil, or fatty meal. Force fluids to stimulate diuresis. Give 5 Gm. (less for children) of sodium bicarbonate orally every four hours as necessary to maintain an alkaline urine to prevent the precipitation of acid hematin crystals and subsequent blocking of the renal tubules. Give repeated small blood transfusions until hemoglobin is 60 to 80 per cent of normal. In prevention keep out of the hands and clothes (*infants' diapers*) of children.

Tabulation of results observed in 854 cases in a private pediatric practice tends to contraindicate the use of antimicrobics prophylactically and therapeutically in children with acute infections of the respiratory tract. As previously observed by others, more bacterial complications occurred in measles patients who were so treated than in those who received no antimicrobics.—Reimann, H. A.: Infectious Diseases (Review of Internal Medicine), Arch. Int. Med. 109: 61 (January) 1962.

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MARCH, 1962

DR. WALTER E. VEST

Dr. Walter E. Vest of Huntington, West Virginia, who died the last of January, was one of the finest examples of the well-rounded physician. Although quiet and modest, his warm personality made him a natural leader, as evidenced by his having been president of most of the many medical organizations to which he belonged. Among these were the West Virginia Medical Association, the Southern Medical Association, the American Geriatrics Society, the American Therapeutic Society, and the Federal Medical Licensing Boards. He was a member of Alpha Omega Alpha, and Phi Beta Kappa. For years he was a delegate to The American Medical Association, and a member of its Council on Constitution and By-Laws and of the Committee on Medical Facilities.

By no means the least of his accomplishments were being the able editor of the *West Virginia Medical Journal* and a member of the three-man Committee on Advertising of the State Medical Journal Advertising Bureau.

Although he was born in 1882, he was one of those fortunate individuals who retained his mental faculties to the very last. It is quite fitting that his leading editorial in the February issue of the *West Virginia Medical Journal*, entitled "Aging Comes of Age," recounted with youthful enthusiasm the progress made in ameliorating the ravages of time.

There were many whose eyes were moist when he made his farewell to the House of Delegates of the A.M.A. at the Minneapolis meeting in November, 1960. He will be sadly missed by his many friends—certainly by the editor of this journal, who is proud to have enjoyed his friendship for many years.

* * *

THE COMPLETE PHYSICAL

Editor Henry Davidson of the *Journal of the Medical Society* of New Jersey has the gift of writing editorials that are both interesting and thoughtful. An example in the January issue is hereby quoted in part:

* * *

One of the by-products of advancing specialization is the decline of the complete physical examination. General practitioners seem to be the only ones left who can do this, and they often become discouraged by the frequency of "normal" findings. There isn't much glamor in doing a really meticulous physical examination, and the constant re-iteration of "negative" becomes monotonous. Internists, who certainly *can* do complete examinations, often prefer to leave to the neurologist, the ophthalmologist, the orthopedist, the psychiatrist and the otologist the responsibility for invading those areas of the psychobiologic unit. Thus, it may come to pass that "complete physical examinations" will be relegated to exercises for junior medical students.

. . . To the layman, the symbol of the physician is the stethoscope, the tongue depressor and the blood-pressure cuff. The more thorough the examination, the more

convinced the patient is that here is a friendly and scrupulous physician who knows what he is talking about. You and I know that many serious disorders do not, in early stages, manifest themselves in changes that can be picked up by physical examination. None the less, the psychologic impact is there, and in these days of self-criticism, is not to be neglected.

A careful examination is also a form of self-discipline. Cursoriness here becomes casualness in other facets of practice. It is also a technic of keeping up with medical progress. It is a way of re-establishing the thread of personal contact with patients that is threatened by the burgeoning of medical machinery. It is a recognition of the value of the laying on of hands. It is the badge of distinction of the physician. Many give health advice: nutritionists, psychologists, technicians, pharmacists, and others; but none do physical examinations, so this becomes idiomatic to the medical profession.

Oh yes—we almost forgot. You might even find something if you examine carefully enough and frequently enough.

* * *

SERVICE CENTER FOR EMERGENCY DRUG INFORMATION

On January 8 the world's first service center for emergency drug information for doctors was put into operation. Conceived and operated by physicians, the service, called Mediphone, is a drug information center located in Washington, D. C. It is capable of supplying detailed data instantaneously on any one of the more than 8,000 drugs in use today. Any member physician in the country, faced with an emergency or wanting to know more about a drug he wishes to use, can obtain by telephone all the information he needs any time of the day or night.

Mediphone's founder and president is Dr. Cortez F. Enloe, Jr. Duke's Dr. Jay M. Arena, heads the imposing list of its board of directors.

On the basis of extensive tests and analysis of inquiries made of the new service over the past 18 months, Dr. Enloe said that Mediphone will soon become the nation's primary source of data on drug therapy.

"The information that Mediphone stores for doctors," Dr. Enloe stated, "was gathered by a research team of physicians, biochemists, pharmacologists, pharmacists and toxicologists. They studied official compendia, textbooks, manufacturers' data and medical periodical literature covering a 15 year period. This mass of data was then arranged in manageable form with the aid of the most modern data-handling and retrieval techniques and equipment furnished by the Remington-Rand, IBM and Bell Telephone Companies. The data, he said, "will be kept current with the assistance of the Department of Pharmacology of George Washington University Medical School, the College of Pharmacy of Long Island University, a team of medical librarians searching more than 200 medical journals each month and with official reports from the American Medical Association."

Dr. Enloe says that the new service works this way: When a physician enrolls in Mediphone—the cost of membership is \$20 a year—he is assigned a registry number and issued a permanent card bearing that number. Any hour of the day or night when a physician places a call to Mediphone, he states his registration number and the questions to be answered. Within a matter of seconds, the Mediphone responder—always a physician—gives the answer. Within 24 hours after the call is completed, Mediphone mails the member physician a report of his inquiry for his case records. Verbatim transcripts of the call are also available if needed.

"The compilation of data resulting from calls coming into the Mediphone center," Dr. Enloe pointed out, "will be an extremely important by-product of the service. Each call will be analyzed by data-processing equipment for what it reveals about the characteristics of drugs in use, including unusual reactions. Thus, for the first time, patterns of drug behavior will be available to us which not only will give us a clear picture of therapeutic problems being met in practice today, but also will serve as a kind of 'early warning system' for the unexpected effects some drugs may be found to exert."

Mediphone has no connection with any pharmaceutical firm, so its opinions are completely unbiased. It paraphrases Abraham Lincoln's famous phrase: It is an organization of the doctors, by the doctors, for the doctors.

Full information may be obtained from the Washington Office of the Information Center, 1500 Massachusetts Avenue NW, Washington 5, D. C.

* * *

HOSPITAL CARE FOR LOW INCOME GROUPS

In this issue a letter from Dr. Raney Stanford offers a plan to provide hospital care for medically indigent patients. Although Dr. tSanford's plan has been approved by the House of Delegates, it has never been put into action.

Dr. Stanford's letter is very timely. It came in the same mail with the announcement—also in this issue—that the Executive Council of the State Medical Society had approved a Blue Shield national program for prepaid medical care of the aged. The American Medical Association and the American Hospital Association have both approved the national Blue Shield program. Dr. Stanford's plan emphasizes the importance of hospital insurance. Both Dr. Stanford's letter and the Executive Council announcement deserve careful consideration as an answer to socialized medicine.

* * *

A BOOST FOR SENSIBLE SHOES

Doubtless many TV viewers followed with interest the tour of the White House at the end of Valentine's Day. Regardless of political belief, most who saw it must have been impressed with the poise and intelligence of Mrs. Kennedy. One plausible reason for the fact that she seemed just as fresh and unwearied at the end of the hour as at the beginning was that she wore sensible footwear. It is hard to believe that she could have stood up to the long ordeal so well if she had had to walk in the still fashionable stilette heels.

Human nature—especially feminine human nature—being what it is, there is reason to hope that many women in her TV audience will follow her example and dis-

card the three-inch heels and dagger-pointed toes for more comfortable as well as more becoming footwear.

WHO IS BLUE SHIELD, ANYWAY?

We frequently hear one or another of our colleagues refer to his Blue Shield Plan as though it were some kind of foreign power. "How come that Blue Shield Plan won't pay for an incidental appendectomy?" he'll ask, with something of the same mixture of detached resentment and impotent impatience he would exhibit if he were commenting on a new provocation by Fidel Castro.

But Blue Shield is us—the medical profession. In the beginning, it became a member of the medical family either by birth or by legal adoption, since every Blue Shield Plan was organized by its local medical society, or at least with its explicit approval. Blue Shield is a member of our family because it is subject to our discipline. Its medical policies are guided by medical men and by the medical societies whose endorsement every Blue Shield Plan must maintain.

Moreover, like our profession itself, Blue Shield's sole motivation is to help us better to serve our patients. Like us, Blue Shield seeks to help the whole community—not just the fortunate few who least need medical care or are best able to pay for it—or both.

Perhaps most important, Blue Shield seeks, as an ideal, to help us render our services at a predictable cost, particularly for our patients in the medium and lower income brackets. This is the true meaning of the service benefit commitment which nine out of ten of us have accepted in four out of five of all Blue Shield Plans. Even in those areas where our colleagues have not made a formal commitment to render fully paid service, Blue Shield is seeking to provide schedules of payment that will be acceptable to us on that basis.

Blue Shield is a shield of comfort and security for our patients. And for us, it is something we have created to help us meet our community responsibilities. Blue Shield is a bridge between us and our patients—and a strong shield for the preservation of freedom in the practice of medicine.

Correspondence

HOSPITAL CARE FOR LOW INCOME GROUPS
To the Editor:

I have long been interested in promoting hospitalization for our low-income groups. I, together with a group from the State Society, worked out a plan which, although approved by the House of Delegates, never was implemented. In substance it suggested that the state, the county, and the federal government pay the full per diem cost of every hospitalized indigent patient in North Carolina who was not otherwise covered. This figure is now about \$20 per diem.

I quote from a personal letter received from Dr. Ellen Winston, Executive Commissioner, State Board of Public Welfare, Raleigh, North Carolina: "Since the Kate Biting Reynolds contribution has increased, hospitals are now generally getting \$16.00 from the State, \$1.00 from Duke, and \$1.60 from the Reynolds fund, or a total of \$18.00 per day for both the indigent and the medically indigent."

We still lack a little of paying the full per diem cost, but I am sure this will be reached before long, provided our state makes proper progress. We had a plan for the patient which we doctors call the medically indigent patient. This does not cover the same group that Dr. Winston (Welfare Department) covers with this term in her group of medically indigent patients. This group has never been certified and is on no official welfare list, but is able to pay part but not the full cost of hospital care. The Blue Shield and the American Medical Association back the national program for aged with a privately financed program of surgical and medical benefits for all persons over 65 years of age. The estimated cost of this program is \$3.00 a month.

Neither I nor my committee felt that it was possible for the people in this group to buy enough insurance to take care of their whole hospital bill. While the patient of this group would be able to pay a reasonable doctor's fee, I doubt that he could buy hospital insurance and also Blue Shield. It seems to me that the hospital bill is the one that should be insured for these people who can-

not pay the full cost of medical care. Blue Shield insurance for the ones that are able to pay it is very fine and helpful. The suggestion that our group made is that the individual, certified member of the group who is not able to pay the full cost of hospital care should be allowed to buy insurance at a premium that he or she can afford with as much coverage as that policy would give. Any additional charge by the hospital would be gotten from the same sources that take care of the indigent patients.

It was further suggested that the members of this group be rendered a doctor's fee based on ability to pay. (In our plan the indigent patients that are now on the welfare roll, would not receive any doctor's bill and would be looked after in the same manner as they are now by the doctors who look after service patients.) The group that I have been talking about would have his or her own individual doctor and would pay him a reasonable fee.

The advantages in using the welfare fund to take care of the hospital part of this patient's bill not paid by his insurance would be many. It would be handled at the state level, and there would be no actual subsidization of either the patient or the doctor, but it would simply be an extension of the plan that we have found so satisfactory in looking after our indigent patients. This plan would be in keeping with our democratic principles, and the extra money that was paid would go to the hospital and would cost the state and federal governments much less than any federal plan that has so far been suggested. Moreover, we already have the machinery to handle such a plan.

I am inserting this paragraph for clarification. The last group that I have been talking about is the doctor's medically indigent group, the group whose members can pay part of the cost of medical care, but not all of it. The members of this group would have to be certified as to salary and need. We already have the machinery to do this. Our Welfare Department would be able to handle every phase of it. The individual members would be encouraged to buy insurance at a premium which they could afford with as much coverage as this premium

would give them. The remainder of his or her hospital bill would be subsidized from some of the same sources as the indigent patient's, and each member of this group would be rendered a reasonable physician's charge by his or her physician. We made this further statement: In our opinion the members of this group who failed to buy voluntary insurance would be helped only to the extent that they would have been helped if they had bought it. This was not suggested with the idea of penalizing anybody, but was an effort on our part to be fair to the ones who do buy voluntary insurance.

If the federal government was inclined to worry about the amount of money that it would have to spend for its part of this program for this group, we can call its attention to the fact that the plan that we are advocating, as far as North Carolina is concerned, would be just a pittance compared to the amount that the United States of America is spending on underprivileged people in many other countries, and we should remember two things: that the poor are always with us, and that these are our very own and they deserve all the help that we can give them. Apropos of this, our so-called conservatives, who are really our reactionaries, should realize that even a democracy in these modern times has to do certain essential things for its people.

W. R. Stanford, M. D.
Durham

Care And Medico Vote To Merge

Two international aid agencies—CARE, which sends food and self-help supplies abroad, and MEDICO, founded to serve as "physicians to the world"—has joined forces.

MEDICO, co-founded by Dr. Peter D. Comanduras and the late Dr. Tom Dooley, will operate as a service of CARE. It will continue to send teams of American doctors, nurses and technicians overseas to augment medical and clinical health services, training, and education. Assistance in recruiting volunteer physicians to serve MEDICO's overseas installations will continue to be provided by some of the ten American medical specialty societies which became affiliated with MEDICO in 1961. CARE will assume administrative responsibilities and provide material support.

Committees & Organizations

BLUE SHIELD COMMITTEE

PREPAID MEDICAL CARE FOR THE AGED

The Medical Society of the State of North Carolina, through its Executive Council meeting on January 28, 1962, has approved at the state level the recently announced Blue Shield national program of prepaid medical care coverage for the aged. In making the announcement, Dr. Claude B. Squires, president of the State Society, stated that the plan is to be promptly implemented along with other Blue Shield plans.

The Society's action has thus made North Carolina one of the first states to sanction implementation of the national voluntary program extending surgical and medical care benefits for persons 65 and over.

This program of uniform nationwide Blue Shield benefits for physicians' services for older persons was recently announced jointly by the American Medical Association and the National Association of Blue Shield Plans at an estimated monthly cost of approximately \$3.00 per person.

State Society officials announced that the program will be administered in North Carolina by the Hospital Saving Association of Chapel Hill as the approved Blue Shield agency in and for North Carolina.

The action of the North Carolina State Medical Society fully complements the action of its House of Delegates taken in February, 1961, when it endorsed the plan for and sale of voluntary coverage in the form of senior certificates. These have been available for certain of the benefits which will be expanded under the newly announced plan.

Benefits

Under the proposal all Blue Shield plans will underwrite a uniform contract for persons over 65 years of age which will include the following benefits:

1. Surgery—wherever performed
2. Anesthesia service
3. In-hospital medical care
4. Medical care in nursing homes—physician's

visits to subscribers confined in a licensed nursing home

5. Radiation therapy—treatment for malignancies, wherever rendered, by use of x-ray, radium, and radioisotopes
6. X-ray examinations for the hospitalized bed patients
7. X-ray examinations for outpatients if rendered within 72 hours after accidental injury
8. Laboratory and pathologic examinations—for hospitalized bed patients

Income Limits

Through participating physician agreements, coverage services will be "paid in full" for single persons whose annual income is \$2,000 or less, and for married couples with a combined income under \$4,000.

Costs

Rates for this program, when completed, will be uniform throughout the nation, representing a composite of all local plan rates. The present actuarial estimates place the monthly rate for one person at \$3.20 (\$9.60 quarterly) and the monthly rate for married couples at \$6.10 (\$18.30 quarterly).

Pooling of the Risk

This high benefit, low cost program can be offered and maintained because the total risk will be shared by all plans in a common pool. Thus retirement areas will be protected against an excessive risk.

Limitations and Exclusions

It is proposed that pre-existing conditions will be covered after a reasonable waiting period, probably six months. Limitations and exclusions will be minimal, and will include only such standard exclusions as care furnished under government or workman's compensation laws or the Veterans Administration, cosmetic operations, and routine physician examinations.

The Executive Council action came after the proposal had first been reviewed and approval recommended by the Blue Shield Committee of the Medical Society, under the chairmanship of Dr. J. H. Shuford of Hickory.

In a related proposal, the American Hospital Association and the National Blue

Cross plans have proposed the implementation of a voluntary coverage non-profit plan of hospitalization available to all persons aged 65 years and over in the form of senior certificates. These have been available for certain of the benefits which will be expanded under the newly announced plan.

Bulletin Board

Preliminary Program of the ONE HUNDRED EIGHTH ANNUAL SESSION OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA

May 5, 6, 7, 8, 9, 1962

Raleigh, North Carolina

**Headquarters — Sir Walter Hotel and
Reynolds Coliseum — State College Campus**

SATURDAY, MAY 5, 1962

- 11:00 A.M.—Executive Council Meeting
(Business Session may be continued
Sunday morning at 10 o'clock)
(Hayes Barton Room—Sir Walter)

SUNDAY, MAY 6, 1962

- 10:00 A.M.—General Registration opens, Booth
(Front lobby—Reynolds Coliseum)
(Society Members, Delegates, Officials, Guests, Technical and Scientific Exhibitors will register in this Area.)
(Auxiliary Members to register at Sir Walter Hotel—Mezzanine)
- 2:00 P.M.—First Meeting of the Annual Meeting
THE HOUSE OF DELEGATES of the Medical Society
Donald B. Koonce, M.D., Speaker, presiding
(Agenda will be available)
(Main Arena, South—Reynolds Coliseum)
Invocation: minister to be announced
- 2:00 P.M.—Carolina Industrial Medical Association Meeting
(College Inn Restaurant—Western Blvd.)
- 6:00 P.M.—House of Delegates recesses to Monday, May 7, 2:00 P.M.
- 6:00 P.M.—Dinner—Carolina Industrial Medical Association
(College Inn Restaurant—Western Blvd.)
- 8:00 P.M.—Memorial Service
Charles H. Pugh, M.D., Chairman, presiding
(Elizabeth Room—Sir Walter)

MONDAY, MAY 7, 1962

9:00 A.M.—Scientific and Technical Exhibits open
(Main Arena, North—Reynolds Coliseum)

9:00 A.M.—General Registration opens, Booth (Front lobby—Reynolds Coliseum)
(Society Members, Delegates, Officials, Guests, Technical and Scientific Exhibitors will register in this area.)
(Auxiliary members to register at Sir Walter Hotel—Mezzanine)

9:00 A.M.—NORTH CAROLINA BOARD OF MEDICAL EXAMINERS
(Meet for Business and Hearings)
(Manteo Room—Sir Walter)

FIRST GENERAL SESSION

Monday, May 7, 1962

9:00 A.M.—Convene Session
Claude B. Squires, M.D., President
Invocation:

9:10 A.M.—RECENT ADVANCES IN THERAPEUTICS: HEMATOLOGY
R. Wayne Rundles, M.D., Professor of Medicine, Duke University Medical Center, Durham

9:30 A.M.—RECENT ADVANCES IN MANAGEMENT: ACTIVE AND PASSIVE IMMUNIZATION
S. F. Ravenel, M.D., Greensboro

10:00 A.M.—Annual Address of the President
Claude B. Squires, M.D., Charlotte

10:30 A.M.—Break

11:00 A.M.—RECENT ADVANCES IN THERAPEUTICS: PAIN
Eben Alexander, Jr., M.D., Professor in Neurosurgery, Bowman Gray, Winston-Salem

11:20 A.M.—RECENT ADVANCES IN THERAPEUTICS: PSYCHO-ACTIVE DRUGS
Arthur J. Prange, Jr., M.D., Assistant Professor of Psychiatry, UNC School of Medicine, Chapel Hill

11:40 A.M.—RECENT ADVANCES IN THERAPEUTICS AND MANAGEMENT—PANEL DISCUSSION
Moderator: George C. Ham, M.D., Professor
Dept. of Psychiatry
UNC School of Medicine, Chapel Hill

PANEL: R. Wayne Rundles, M.D.
S. F. Ravenel, M.D.
Eben Alexander, Jr., M.D.
Arthur J. Prange, Jr., M.D.

1:00 P.M.—Announcements

ADJOURNMENT

ALUMNI LUNCHEONS

Monday, May 7, 1962, 1:00 P.M.

Duke University Medical School Alumni, Talmadge L. Peele, M.D., Secretary, Durham (College Inn Restaurant—Western Blvd.)

Medical Advisory Board
North Carolina State Commission for the Blind (College Inn Restaurant—Western Blvd.)

Academy of Preventive Medicine and Public Health

Elizabeth Corkey, M.D., Secretary
(S & W Cafeteria—Downtown Raleigh)

2:00 P.M.—HOUSE OF DELEGATES of the Medical Society recessed Meeting reconvenes
(Main Arena, South—Reynolds Coliseum)

2:30 P.M.—POSTGRADUATE AND AUDIO-VISUAL PROGRAM
(College Union Theatre—State College Campus)

J. Leonard Goldner, M.D., Chairman and Moderator
Discussion: Committee Members

2:00 P.M.—RESUSCITATION OF THE NEW-BORN (SKF)

2:30 P.M.—MECHANISM OF NAUSEA AND VOMITING (SKF)

3:00 P.M.—EXTERNAL CARDIAC MASSAGE (SKF)
(Discussion by Frederick H. Taylor, M.D., Charlotte)

3:30 P.M.—ONE DAY'S POISONING

4:15 P.M.—CIVIL DEFENSE EMERGENCY HOSPITAL

SECTION ON GENERAL PRACTICE OF MEDICINE

Monday, May 7, 1962, 2:30 P.M.

(Riddick Bldg.—Room 242)

Glenn E. Best, M.D., Chairman, Clinton
SYMPOSIUM ON VASCULAR ABNORMALITIES AND DISEASES AMMENDABLE TO SURGERY

Panel Discussion

Moderator: Edward S. Orgain, M.D.

Duke Hospital, Durham

PANEL: Richard Peters, M.D.

N. C. Memorial Hospital, Chapel Hill

Gordon Dugger, M.D.

N. C. Memorial Hospital, Chapel Hill

Felda Hightower, M.D.

Bowman Gray, Winston-Salem

Madison Spach, M.D.

Duke Hospital, Durham

SECTION ON OPHTHALMOLOGY & OTOLARYNGOLOGY

Monday, May 7, 1962, 2:30 P.M.

(Riddick Bldg.—Room 11)

E. Hale Thornhill, M.D., Chairman, Raleigh

Otolaryngology Section:

IDIOPATHIC HEMOTYMPANUM

Beverly Armstrong, M.D., Charlotte

HEMATOLOGICAL AND PATHOLOGICAL STUDIES OF IDIOPATHIC HEMOTYMPANUM

George Penick, M.D., Chapel Hill

RHINOPLASTIC SUBMUCOUS REPLACEMENT

Newton Fischer, M.D., Chapel Hill

Business Session

Ophthalmologic Section:

(subject to be announced)

G. Thomas Kiffney, M.D., Chapel Hill

EXPERIENCES & USE OF LIGHT COAGULATOR

Banks Anderson, Jr., M.D., Durham

SECTION ON PEDIATRICS

Monday, May 7, 1962, 2:30 P.M.

(Reynolds Coliseum—Room 125-127)

Richard S. Kelly, M.D., Chairman, Fayetteville

HEMORRHAGE IN THE NEWBORN

Campbell W. McMillan, M.D., Laurinburg

THE ETIOLOGY AND TREATMENT OF PRIMARY ATYPICAL PNEUMONIA

Wallace A. Clyde, Jr., M.D., Chapel Hill

TREATMENT OF SALICYLATE POISONING

Jay M. Arena, M.D., Durham

MONGOLISM

Arthur H. London, Jr., M.D., Durham

THE PROFILE OF THE JUVENILE DIABETIC

Charles W. Styron, M.D., Raleigh

SECTION ON PUBLIC HEALTH AND EDUCATION

Monday, May 7, 1962, 2:30 P.M.

(Reynolds Coliseum—Room 129)

Jacob Koomen, M.D., Chairman, Raleigh

USE OF PRIVATE PHYSICIAN'S RECORDS IN MATERNAL HEALTH STUDIES

W. B. Jones, Jr., M.D., M.P.H., Warrenton

Rebecca L. Dean, R.N.

John C. Cassel, M.B., B.CH., M.P.H., Chapel Hill

A REVIEW OF NORTH CAROLINA'S LICENSED NURSING HOMES

Charles M. Cameron, Jr., M.D., Chapel Hill

Lydia S. Holley, R.P.T.

A REVIEW OF IMMUNIZATION STATUS OF FIRST GRADE STUDENTS IN NORTH CAROLINA, 1961-1962

Theodore D. Scurletis, M.D., Raleigh

Harold B. Sauls, Raleigh

H. Bradley Wells, Raleigh

SECTION ON ANESTHESIOLOGY

Monday, May 7, 1962, 2:30 P.M.

(Reynolds Coliseum—Room 113)

Bill J. Swan, M.D., Chairman, Concord

RECENT ADVANCES IN CARDIAC RESUSCITATION

Special Presentations:

CAUSES AND PREVENTION OF CARDIAC ARREST

Thomas H. Collawn, M.D., Charlotte

DEVELOPMENT AND USE OF OPEN CHEST CARDIAC MASSAGE

Thomas B. Clay, M.D., Mayodan

DEVELOPMENT AND USE OF CLOSED CHEST CARDIAC MASSAGE

John Wing Fox, M.D., Winston-Salem

COMPLICATIONS OF CLOSED CHEST CARDIAC MASSAGE

David A. Davis, M.D., Kenneth Sugioka, M.D., and Rodney McKnight, M.D., UNC School of Medicine, Chapel Hill

(Approximately 20 minutes each followed by a 10 minute discussion from the floor)

SECTION ON ORTHOPAEDICS AND TRAUMATOLOGY

Monday, May 7, 1962, 2:30 P.M.

(Broughton Bldg.—Room 111)

Wayne S. Montgomery, M.D., Chmn., Asheville

SHOCK SECONDARY TO TRAUMA

Jesse H. Meredith, M.D., Winston-Salem

(Discussion—5 mins.)

TWELVE YEARS OF TRAUMA EXPERIENCE IN A SMALL HOSPITAL

Raiford D. Baxley, M.D., Siler City

(Discussion—5 mins.)

INJURIES TO THE SHOULDER OBSCURED BY NEGATIVE X-RAYS

Thomas B. Dameron, Jr., M.D., Raleigh

(Discussion—5 mins.)

MANAGEMENT OF SOFT TISSUE INJURIES IN THE HEAD AND NECK AREA

Nicholas G. Georgiade, M.D., Durham

(Discussion—5 mins.)

RECOGNITION AND MANAGEMENT OF URINARY TRACT TRAUMA

Joseph W. Hooper, Jr., M.D., Wilmington

(Discussion—5 mins.)

INTERMISSION

THORACIC TRAUMA AND ITS TREATMENT

Jesse Chapman, M.D., Asheville

STEERING WHEEL INJURIES OF THE THORAX

Gordon M. Carver, Jr., M.D., Durham

TRAUMATIC RUPTURE OF THE DIAPHRAM

R. W. Postlethwait, M.D., Durham

THE ROLE OF THE RESPIRATOR FOLLOWING CHEST INJURIES

Richard Peters, M.D., Chapel Hill

(Discussion—5 mins.)

BUSINESS MEETING

4:30 P.M.—Registration Booth closes.

5:00 P.M.—Audio-Visual Program closes.

5:00 P.M.—Scientific and Technical Exhibits Close.

(Exhibits under Supervision of official watchman)

5:30 P.M.—Social Hour and Entertainment for Technical and Scientific Exhibitors by: Medical Society

6:00 P.M.—HOUSE OF DELEGATES adjourns Annual Meeting (provided business so extends)

6:00 P.M.—MSSNC Student Scientific Section Program
(College Union—State College Campus)

BANQUET

MSSNC honoring Fourth Annual Meeting MSSNC Student AMA Chapters in North Carolina: Bowman Gray, Duke, and University of North Carolina

ADDRESS: A LOOK AT MOSCOW MEDICINE

Jesse Meredith, M.D.

Bowman Gray School of Medicine

Winston-Salem

(papers from each of the three schools will be presented. Titles will be listed in the Official Program.)

Discussion and presentation of SAMA Chapter Awards

6:15 P.M.—Social Hour—Medical College of Virginia Alumni Association
(Raleigh Room—Sir Walter)

7:00 P.M.—Dinner—Medical College of Virginia Alumni Association
(Raleigh Room—Sir Walter)

7:30 P.M.—Social Hour — Jefferson Medical Alumni Association, Residence of V. Watson Pugh, Jr., M.D., 1618 Oberlin Road

PROGRAM

Tuesday, May 8, 1962

7:30 A.M.—Dutch Breakfast—Medical Women Medical Society State of North Carolina

(Sir Walter Hotel—Raleigh Room)

9:00 A.M.—Registration opens, Booth
(Front lobby—Reynolds Coliseum)

9:00 A.M.—Scientific and Technical Exhibits open
(Main Arena, North—Reynolds Coliseum)

SECOND GENERAL SESSION

Tuesday, May 8, 1962

(Main Arena, South—Reynolds Coliseum)

9:00 A.M.—Convene Session, Claude B. Squires, M.D., President

9:10 A.M.—CLINICO-PATHOLOGICAL CONFERENCE

Clinical Presentation:

Louis G. Welt, M.D., Professor of Medicine

UNC School of Medicine, Chapel Hill

Pathological Presentation:

Thomas D. Kinney, M.D., Professor and Chairman, Department of Pathology, Duke University Medical Center, Durham

10:10 A.M.—Address: The Honorable Terry Sanford

Governor of State of North Carolina
Raleigh

10:30 A.M.—Break

11:00 A.M.—CARDIOVASCULAR DISEASE
CURRENT METHODS OF TREATING CARDIOVASCULAR DISEASE
Panel Discussion

Moderator: Paul W. Sanger, M.D., Chief

Department of Thoracic and Cardiovascular Surgery, Charlotte Memorial Hospital, Charlotte

PANEL: Oscar Creech, Jr., M.D., Professor of Surgery
Tulane University, New Orleans

Edward F. Parker, Jr., M.D., Professor of Surgery, Medical College of South Carolina, Charleston

Francis Robicsek, M.D., Department of Thoracic and Cardiovascular Surgery
Charlotte Memorial Hospital, Charlotte

Will Sealy, M.D., Chief of Cardiovascular and Thoracic Surgery, Duke University, Durham

1:00 P.M.—Announcements

ADJOURNMENT

ALUMNI LUNCHEONS

Tuesday, May 8, 1962, 1:00 P.M.

Wake Forest Alumni Association of Bowman Gray School of Medicine
(College Union—State College Campus)

The Medical Alumni Association of the University of North Carolina
(Balentine's—Cameron Village)
North Carolina Society of Internal Medicine

(College Inn Restaurant—Western Blvd.)

2:30 P.M.—POSTGRADUATE AND AUDIO-VISUAL PROGRAM

(College Union Theatre—State College Campus)

J. Leonard Goldner, M.D., Chairman and Moderator

Discussion: Committee Members

2:00 P.M.—FORTY CAUSES OF ABDOMINAL PAIN (Hilger)
 2:30 P.M.—GAIT AND MUSCULOSKELETAL DISORDERS (W. T. Green)
 3:15 P.M.—WHY JOHNNY BLEEDS (Intersociety Committee on Pathology)
 3:45 P.M.—COMMON SKIN PROBLEMS (J. Lamar Callaway, M.D.)
 4:15 P.M.—THE EARLY DETECTION AND MEDICAL MANAGEMENT OF ULCERATIVE COLITIS (Hightower, Broders, et al)
 SECOND MEETING OF THE HOUSE OF DELEGATES
 Tuesday, May 8, 1962, 2:30 P. M.
 (Main Arena, South—Reynolds Coliseum)
 (Agenda will be available)

SECTION ON INTERNAL MEDICINE

Tuesday, May 8, 1962, 2:30 P.M.

(Reynolds Coliseum—Room 129)

Joseph S. Hiatt, Jr., M.D., Chairman, Southern Pines

THE TREATMENT OF ULCERATIVE COLITIS

Frank Somer, M.D., Winston-Salem

BACTERIAL ENDOCARDITIS IN THE OLDER AGE GROUP

C. Glenn Sawyer, M.D., N. C. Baptist Hospital, Winston-Salem

THE HEMODYNAMICS OF MITRAL VALVE DISEASE

Henry D. McIntosh, M.D., Robert E. Whalen, M.D., Duke Hospital, Durham

THE USE OF HYPOTENSIVE DRUGS

James Woods, M.D., N. C. Memorial Hospital, Chapel Hill

SECTION ON SURGERY

Tuesday, May 8, 1962, 2:30 P.M.

(Riddick Bldg.—Room 242)

Joshua F. B. Camblos, M.D., Chairman, Asheville
 SYMPOSIUM: CARCINOMA OF THE BREAST
 THE SURGICAL TREATMENT OF BREAST CANCER

Frank R. Johnston, M.D., Bowman Gray, Winston-Salem

THE RADIATION THERAPY OF BREAST CANCER

Patrick Cavanaugh, M.D., Department of Radiology, Duke Hospital, Durham

THE ENDOCRINE THERAPY OF BREAST CANCER

James F. Newsome, M.D., Department of Surgery, UNC, Chapel Hill

THE CHEMOTHERAPY OF BREAST CANCER

William W. Shingleton, M.D., Duke University, Durham

INTERMISSION

QUESTION AND ANSWER PERIOD

SECTION ON OBSTETRICS AND GYNECOLOGY

Tuesday, May 8, 1962, 2:30 P.M.

(Reynolds Coliseum—Room 125-127)
 Courtney D. Egerton, M.D., Chairman, Raleigh
 SYMPOSIUM ON ABORTIONS
 THREATENED AND HABITUAL ABORTIONS
 Luther M. Talbert, M.D., Department of Obstetrics and Gynecology, UNC, Chapel Hill
 INEVITABLE, INCOMPLETE AND SEPTIC ABORTIONS
 Frank C. Greiss, Jr., M.D., Department of Obstetrics & Gynecology, Bowman Gray, Winston-Salem
 THREATENED ABORTION OR ECTOPIC PREGNANCY
 Bayard Carter, M.D., Department of Obstetrics & Gynecology, Duke Hospital, Durham
 PANEL DISCUSSION

SECTION ON PATHOLOGY

Tuesday, May 8, 1962, 2:30 P.M.

(Reynolds Coliseum—Room 113)

Robert W. Prichard, M.D., Chairman, Winston-Salem

PANEL DISCUSSION:

CURRENT PROBLEMS IN THE PRACTICE OF PATHOLOGY

H. Lee Large, M.D., Moderator, Charlotte

4:30 P.M.—Registration closes.

5:00 P.M.—Audio-Visual Program closes.

5:00 P.M.—Exhibits close.

PRESIDENT'S DINNER

Tuesday, May 8, 1962

(Sir Walter—Virginia Dare Room)

7:00 P.M.—BANQUET (Admission by ticket only)

Toastmaster: Roscoe D. McMillan, M.D., Red Springs

Invocation: (minister to be announced)

7:30 P.M.—Presentation of Guests

7:40 P.M.—Presentation of President's Jewel:
 Roscoe D. McMillan, M.D., Red Springs

7:50 P.M.—Installation of President-Elect,
 John R. Kernodle, M.D., Burlington
 Administration of Authorized Oath of Office

An Address in Acceptance: John R. Kernodle, M.D.
 President

ADDRESS: Norman A. Welch, M.D.,
 Speaker
 House of Delegates
 American Medical Association
 Boston, Mass.

9:00 P.M.—Adjourn Banquet Session

10:00 P.M.—PRESIDENT'S BALL

(Virginia Dare Ballroom—Sir Walter)

(Jan Garber and his Orchestra)

2:00 A.M.—FINALE.

PROGRAM

Wednesday, May 9, 1962

- 7:45 A.M.—EDITORIAL BOARD—NCMJ—
Breakfast (Manteo Room—Sir Walter
ter
9:00 A.M.—Registration opens, Booth
(Front lobby—Reynolds Coliseum)
9:00 A.M.—Scientific and Technical Exhibits
open
(Main Arena, North—Reynolds Coli-
seum)

THIRD GENERAL SESSION

Wednesday, May 9, 1962

(Main Arena, South—Reynolds Coliseum)

- 9:30 A.M.—Convening Session
John A. Payne, III, M.D., First Vice-
President, presiding
9:30 A.M.—Conjoint Session of the North Caro-
lina State Board of Health, Charles
R. Bugg, M.D., President, Raleigh
State Board of Health will preside
over this meeting of The Medical
Society of the State of North Caro-
lina and the State Board of Health.
Charles R. Bugg, M.D., President
J. W. Roy Norton, M.D., State Health
Officer
10:00 A.M.—Committee on Scientific Awards, Re-
port of:
Lester A. Crowell, Jr., M.D., Chair-
man, Lincolnton
Recognition and presentation of
Moore County, Wake County and
Gaston County Awardees:
Associates, Committee on Scientific
Awards:
Alton J. Coppridge, M.D., Durham
Thomas A. Henson, M.D., Greens-
boro
Joseph M. Hitch, M.D., Raleigh
Livingstone Johnson, M.D., Shelby
William J. McKinnon, M.D., Wades-
boro
Vernon W. Taylor, Jr., M.D., El-
kin
John K. Williford, M.D., Lillington
Mr. Emory Hunt, Consultant,
Chapel Hill
10:15 A.M.—Recognition of Fifty Year Club and
presentation of Fifty Year Club Cer-
tificates and Pins
10:30 A.M.—Address: Honorable Chet Holifield
House of Representatives
Congress of the United
States
Washington, D. C.
1:00 A.M.—Address: THE IMPACT OF MEDI-
CAL RESEARCH ON
ARMY OPERATIONS
Brigadier General Howard
W. Doan, MC, Deputy Sur-
geon General, United Stat-
es Army

Washington, D. C.

- 11:30 A.M.—Address: President John R. Kernodle,
M.D.
11:50 A.M.—Elections: (a) Nomination and elec-
tion for suggested
terms seven members
of North Carolina
Board of Medical Ex-
aminers — 2 for 2
years; 2 for 4 years;
3 for 6 years.

Other Elections:

- 12:15 P.M.—Installation of Officers elected by
1962 House of Delegates
12:20 P.M.—Remarks by President John R. Ker-
nodle, M.D.
12:30 P.M.—Exhibits close.
12:30 P.M.—Presentation of Prizes.

ADJOURN SINE DIE

THIRTY-NINTH ANNUAL MEETING
OF THE

AUXILIARY TO THE MEDICAL
SOCIETY OF THE STATE OF
NORTH CAROLINA

SUNDAY, MAY 6, 1962

- 8:00 P.M.—Memorial Services for departed mem-
bers of the Medical Society and Aux-
iliary
Mrs. William E. Adair, Jr., Chairman
(Elizabeth Room—Sir Walter)
MONDAY, MAY 7, 1962

- 9:00 A.M. to
4:00 P.M.—Registration
(Mezzanine)
9:00 A.M.—Golf Tournament
(Carolina Country Club)
9:00 A.M.—Coffee Hour
(Budleigh Room)
9:15 A.M.—Finance Committee Meeting
(President's Parlor)
10:00 A.M.—Executive Committee Meeting
(Hayes Barton Room)
11:00 A.M.—Board of Directors' Meeting
(Hayes Barton Room)
12:30 P.M.—President-Elect's Luncheon
(Elizabeth Room)
For out-going and in-coming State
Officers, Committee Chairmen, Coun-
cils, Past Presidents, and County
Presidents and Presidents-elect.
12:30 P.M.—General Luncheon for Members and
Guests
(Raleigh Room)
3:30 P.M. to
5:00 P.M.—Tea at Governor's Mansion
(transportation furnished)
TUESDAY, MAY 8, 1962
9:00 A.M.—Registration
(Mezzanine)
9:00 A.M.—House of Delegates Meeting
(Virginia Dare Room)
10:30 A.M.—Intermission for Coffee and Cokes
(Budleigh Room)

10:45 A.M.—Annual General Meeting
(Virginia Dare Room)
Special Guests: Mrs. Harlan English,
President
Auxiliary to the American Medical
Association; Mrs. Roy A. Douglas,
President, Auxiliary to the South-
ern Medical Association

12:00 Noon—Installation of Officers

12:15 P.M.—Adjournment

1:00 P.M.—Luncheon and Fashion Show (trans-
portation furnished)
(Carolina Country Club)
Honoring Mrs. English and Mrs.
Douglas

3:30 P.M. to

5:00 P.M.—Tour of Art Museum and Tea—
(transportation furnished)
(Honoring Past Presidents)

7:00 P.M.—Medical Society President's Dinner
Entertainment and Ball
(Virginia Dare Room)

WEDNESDAY, MAY 9, 1962
Coffee and Shopping

COMING MEETINGS

Greensboro Academy of Medicine Symposium
—Greensboro, March 29.

**Annual Medical Alumni Day, University of
North Carolina School of Medicine—Chapel Hill,**
March 30.

**North Carolina Physical Therapy Association,
Annual Meeting—Goodwill Industries, Winston-
Salem, March 31.**

**Hematology Review: Postgraduate Medical
Course—Duke University Medical Center, Dur-
ham, April 2-4.**

Southeastern Psychiatric Association Meeting
—Southern Pines, April 2-4.

**Eleventh Annual Forsyth County Symposium
on Cancer—Hotel Robert E. Lee, Winston-Salem,**
April 5.

**American College of Physicians, Forty-third
Annual Session—Philadelphia, April 9-15.**

**Virginia Chapter, Arthritis and Rheumatism
Association, Postgraduate Seminar on Arthritis
and Rheumatic Diseases—Hotel Roanoke, Roan-
oke, Virginia, April 14-15.**

**Mound Park Hospital Foundation, Postgrad-
uate Course in Clinical Allergy—Mound Park
Hospital, St. Petersburg, Florida, April 19-21.**

**Southeastern Dermatological Association Meet-
ing—University of North Carolina, Chapel Hill,**
April 28-29.

NEW MEMBERS OF THE STATE SOCIETY

The following physicians joined the Medical
Society of the State of North Carolina during the
month of January, 1962:

Dr. Locksley S. Hall, Box 275, Yadkinville; Dr.
William Murphy Bethune, Jr., Bryan Building,

Raleigh; Dr. Scott Livermore Bennett, Box 296,
Locust; Dr. James LeRoy King, West Jefferson
Street, Monroe; Dr. George Elmer Holland, Box
238, Waxhaw; Dr. Clyde Graham Hopper, Jr.,
Union Memorial Hospital, Monroe; Dr. Joseph
Elmo Greene, Marshville Boulevard, Marshville;
Dr. E. M. Sipple, Knollwood, Southern Pines; and
Dr. Herbert Leon Newbold, Jr., 309A Doctors
Building, Asheville.

NEWS NOTES FROM THE BOWMAN GRAY SCHOOL OF MEDICINE OF WAKE FOREST COLLEGE

A seven-year grant has been awarded to in-
vestigate the physical phenomena underlying
heart sounds and murmurs. The National In-
stitutes of Health grant in the amount of \$198,000
names Dr. Merrill Spencer, associate professor of
physiology and pharmacology, as principal in-
vestigator, and Dr. Frank R. Johnston, assistant
professor of surgery, and Dr. Henry S. Miller,
instructor in medicine, as co-investigators.

* * * * *

The Bowman Gray School of Medicine, along
with the other two medical schools of North
Carolina, has received \$10,000 from the United
Medical Research Foundation for basic medical
research to study, prevent, and treat disease
defect and injury.

* * * * *

At the meeting of the Southern Section of the
American Laryngological, Rhinological and Oto-
logical Society in Atlanta, Dr. John A. Ausband,
associate professor of otolaryngology, presented
a paper entitled "Orbital Fractures," and Dr.
Robert P. Morehead, professor and chairman of
the Department of Pathology, read a paper "The
Pathological Basis for the Treatment of Tumor
of Salivary Glands." Dr. James A. Harrill, pro-
fessor of otolaryngology, was program chair-
man.

* * * * *

Dr. Charles Hendley, associate professor of
pharmacology, has been granted a research
career development award through the new
program of the National Institutes of Health.

Dr. Weston M. Kelsey, professor and chairman
of the Department of Pediatrics, spoke at the
meeting of the Danville-Pittsylvania Academy of
Medicine last month on the subject of "Treatable
Endocrinological Problems in Childhood."

* * * * *

Dr. Frank R. Lock, professor and chairman of
the Department of Obstetrics and Gynecology,
presented a paper entitled "Management of
Lower Abdominal Incisions without Surgical
Dressings," at the annual meeting of the South
Atlantic Association of Obstetricians and Gynec-
ologists last month.

* * * * *

At the annual meeting of the Southeastern
Section of the Association for Research in Ophth-

omology, Dr. R. Winston Roberts, professor of ophthalmology, presented a report on the "Use of Librium in the Treatment of Strabismus." He permanent secretary of the section.

* * * * *

On March 12, 13, and 14 a postgraduate course in obstetrics and pediatrics will be presented by the faculty of these departments. The course, designed primarily for general practitioners, is conducted in cooperation with the State Board of Health, and application may be made through the Department of Obstetrics and Gynecology of the medical school.

NEWS NOTES FROM THE DUKE UNIVERSITY MEDICAL CENTER

The Clinical Society of Genito-urinary Surgeons held its annual meeting February 8-9 at the Duke University Medical Center. The Society consists of 40 urologists connected with medical centers throughout the United States. They visited Duke as guests of the Medical Center's urology staff.

Devoted to research and clinical advancement of urology, the Society selects its members on the basis of professional achievement. Meetings are held annually at medical centers where active programs of teaching, treatment, and research in urology are in operation.

On February 7 the visiting urologists were dinner guests at the home of Dr. E. P. Alyea in Hope Valley.

* * * * *

Duke University Medical Center was awarded a renewal grant of \$26,600 by The National Foundation-March of Dimes to integrate the teaching of physical therapy with the programs of various other medical and surgical departments. It became effective January 1.

* * * * *

Dr. Janis V. Klavins, associate professor of pathology at Duke and chief of laboratory service at the Veterans Administration Hospital here, is conducting a research program in an effort to learn more about what happens when the body receives excessive amounts of various amino acids, the "building blocks" of proteins.

Funds totaling \$75,716 to support this investigation for a three-year period have been allotted by the National Institutes of Health, research arm of the U. S. Public Health Service.

* * * * *

A research program aimed at learning more about the chemical composition of the skin has been initiated at the Duke University Medical Center. Funds totaling \$61,755 to support the venture over a three-year period have been allotted by the National Institutes of Health, research arm of the U. S. Public Health Service.

Heading the project are Dr. J. Graham Smith, Jr., associate professor of dermatology, and Dr.

Eugene A. Davidson, assistant professor of biochemistry.

* * * * *

Studies designed to help cerebral palsy victims are under way in a newly opened research unit at the North Carolina Cerebral Palsy Hospital here.

The program is directed toward learning more about the basic causes of cerebral palsy, childhood's greatest crippling affliction. Such knowledge could lead to more effective treatment.

Initiated jointly by the Duke University Medical Center and the Cerebral Palsy Hospital, the program is being conducted in a research unit set up during the past year in the Cerebral Palsy Hospital. Co-directors are Dr. Blaine S. Nashold Jr., Duke neurosurgeon, and Dr. Lenox D. Baker, orthopedic surgeon at Duke and medical director of the Cerebral Palsy Hospital.

NEWS NOTES FROM THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE

Two postgraduate courses in medicine, sponsored by the University of North Carolina School of Medicine, are being offered in North Wilkesboro-Elkin and Lexington. The first course began at North Wilkesboro on Tuesday, March 6. This is being held at Elkin on alternate Tuesdays. The second course started at Lexington on Wednesday, March 7.

The courses consists of two lectures one day a week over a six-week period. No meetings will be held during the week of March 30 due to Medical Alumni Day activities at the University of North Carolina.

The North Wilkesboro-Elkin course is co-sponsored by the Wilkes-Stokes-Surry-Yadkin Medical Societies. The course in Lexington is co-sponsored by the Davidson County Medical Society.

Both courses are acceptable for credit by the American Academy of General Practice for the number of hours attended by the individual physicians.

* * * * *

Dr. Raymond D. Adams of the Harvard Medical School delivered the seventh annual Lee B. Jenkins Memorial Lecture at the University of North Carolina School of Medicine on January 24. He spoke on "Some Observations on the Hepato-Cerebral Diseases."

* * * * *

A new clinical research unit was activated at the University of North Carolina School of Medicine on January 8, and the first of a number of scheduled patients arrived the following day.

The new unit was made possible by a grant, in late 1960, from the National Institutes of Health of the U. S. Public Health Service. The initial grant, which covers a seven-year period and involves a total budget of almost \$900,000 for the

first three years, makes it possible to carry out meticulous research studies while providing high quality care to patients with a wide variety of disorders.

* * * * *

Dr. Kenneth M. Brinkhous, chairman of the Department of Pathology, spoke several times before a meeting of the Board of Trustees of the National Hemophilia Foundation held in New York, January 13-14.

Dr. Brinkhous recently was appointed to the editorial board of the American Medical Association's *Archives of Pathology*.

FORSYTH COUNTY CANCER SYMPOSIUM

The Forsyth County Medical Society and the Forsyth Cancer Service will present the eleventh annual cancer symposium at the Robert E. Lee Hotel in Winston-Salem, on April 5.

The following program has been arranged:

Afternoon Program

- 1:00 Registration
- 1:15 Symposium called to order
Invocation—Dr. W. Kenneth Goodson, Centenary Methodist Church
Welcome—Mrs. Lacey M. Butler, President, Board of Directors Forsyth Cancer Service
Dr. David Cayer, President, Forsyth County Medical Society
- 1:30 Cancer Immunotherapy—New Developments With Practical Implications:
Dr. Chester M. Southam, Sloan Kettering Institute for Cancer, New York
- 2:15 New Developments in Cancer Surgery
Dr. Anthony R. Curreri, University of Wisconsin, Madison, Wisconsin
- 3:00 New Developments in Cancer Radiotherapy
Dr. Walter T. Murphy, Roswell Park Memorial Institute, Buffalo, New York
- 3:45 Intermission—Coffee Break
- 4:00 Panel Discussion:
Dr. William Shingleton—Moderator
Duke University Medical School
Open Discussion of Audience Questions
- 5:00 Intermission

Evening

- 5:30 Social Hour (wives invited)
- 7:00 **Dinner**—Ballroom (Doctors and their wives will be the guests of the Forsyth County Medical Society)
Presiding: Dr. David Cayer
Speaker: Dr. Anthony Curreri

NORTH CAROLINA TUBERCULOSIS ASSOCIATION

Dr. David T. Smith, professor of bacteriology and associate professor of medicine at the Duke University School of Medicine, has been chosen by Governor Terry Sanford to head the recently formed Governor's Advisory Committee on Tuberculosis. The purpose of this committee is to re-

view the tuberculosis problem in the state, study the points of strength and weakness in the attack, and determine the unmet needs.

Serving with Dr. Smith and lay members of the committee are the following physicians: Drs. Jacob Koomen, Jr., vice chairman, assistant health director, North Carolina State Board of Health; Robert F. Young, health director, Halifax County Health Department; and W. H. Gentry, associate superintendent—medical director, North Carolina Sanatorium, McCain.

Also on the committee are Mr. Ben H. Clarke, administrator, North Carolina Sanatorium System; and Mrs. Margaret Dolan, head, Department of Public Health Nursing, University of North Carolina.

HOSPITAL CARE ASSOCIATION

Hospital Care Association has passed \$75 million in benefit payments for hospital services for Blue Cross members.

E. M. Herndon, executive vice president of the state's oldest hospital service plan, said the \$75 million mark in benefits was reached and topped in a bi-monthly check to Rowan Memorial Hospital, Salisbury, covering services to Blue Cross patients billed by the hospital in November.

NEWS NOTES

Dr. James C. Rex, who has been a fellow in surgery in the Mayo Foundation, Rochester, Minnesota, has left that city and will be located in Oteen, North Carolina.

ARTHRITIS AND RHEUMATISM FOUNDATION

Virginia Chapter

The Virginia Chapter of the Arthritis and Rheumatism Foundation will sponsor a post graduate seminar on Arthritis and Rheumatic Diseases at the Hotel Roanoke in Roanoke, Virginia, April 14 and 15.

The registration fee has been set at \$5.00 and should be sent, together with reservations, to Miss Amy Van Pelt, Executive Secretary, Roanoke Branch, Virginia Chapter, The Arthritis and Rheumatism Foundation, P. O. Box 45, Roanoke, Virginia.

Category II credit for the seminar has been assured by the American Academy of General Practice.

SOUTHERN MEDICAL ASSOCIATION

Dr. Daniel L. Sexton, St. Louis, has been selected president-elect of Southern Medical Association, it was announced recently by Dr. J. Garber Galbraith, Birmingham, Alabama, chairman of the association's Council.

He will be installed as president of the 15,000-member organization at its Fifty-Sixth annual meeting to be held in Miami Beach, Florida, November 12-15, 1962.

Other officers of the association are: Dr. A. Clayton McCarty, Louisville, Kentucky, president; Dr. Robert D. Moreton, Fort Worth, Texas, first vice president; and Dr. Charles Max Cole, Dallas, Texas, second vice president.

Dr. Sexton was Southern Medical Association's Councilor from Missouri, 1947-1952; general chairman, St. Louis annual meeting, 1954; second vice president of S.M.A., 1955; and has held important committee assignments.

MOUND PARK HOSPITAL FOUNDATION, INC.

The Mound Park Hospital Foundation, in cooperation with the Department of Medical Education of the Mound Park Hospital, the Bay Pines VA. Center, and the joint sponsorship of the American Academy of General Practice, announced the first of a series of postgraduate courses, beginning with Clinical Allergy. This symposium will be held in the auditorium of the Mound Park Hospital, in St. Petersburg, Florida, April 19 to 21, inclusive.

All classes, meeting and exhibitions, though informal, will be consistent with the highest level of teaching practice, and 12 credit hours in Category 1 will be allowed by the American Academy of General Practice.

SOUTHWESTERN MEDICINE AWARDS

A total of \$500 will be awarded annually for the best original scientific articles to be published in **Southwestern Medicine**, starting with the January, 1962, issue.

The contest for the first year will close on September 1, 1962, so that judging can be completed and awards made at the forty-fourth annual meeting of the Southwestern Medical Association to be held in Albuquerque, New Mexico, October 18-20. From that date, the contest will run from September 1 of each year.

The awards will be made in two classifications, regional and national. All physicians in the United States outside the regional area (West Texas, Arizona, New Mexico, Nevada, and Northern Mexico) may compete for the national awards. Only original scientific articles published in **Southwestern Medicine** will be eligible.

Awards for the best articles written by physicians in the national classification will be made in the following amounts: first prize, \$100; second prize, \$75; third prize, \$50.

All papers should be submitted to Lester C. Feener, M.D., Editor, 310 North Stanton Street, El Paso, Texas. As with all official medical journals, only those papers found acceptable by the board of editors of the journal will be published.

AMERICAN COLLEGE OF PHYSICIANS

Plans have been completed for the forty-third annual session of the American College of Physicians to be held in Philadelphia, April 9-15.

According to Chester M. Jones, M.D., of Boston, president of the College, the scientific program will be one of the most comprehensive ever presented by the College. Nearly 450 physicians are scheduled to take part in lectures, panel discussions, hospital clinics, pathologic and physiologic conferences, and color television presentations.

Presenting the convocation oration will be James Phinney Baxter, president-emeritus of Williams College, Williamston, Massachusetts. He will speak on "How Do We Cope with the Expanding Universe of Knowledge."

Guest speaker at the annual banquet, to be held Thursday, April 12, will be the Honorable Walter H. Judd, M.D., congressman from Minnesota. Earlier that day, at the annual session, Dr. Jones will relinquish the presidency to Franklin M. Hanger, M.D., Staunton, Virginia, president-elect.

ANIMAL CARE PANEL

The Division of Research Grants of the National Institutes of Health has issued a contract to the Animal Care Panel to "determine and establish professional standards for laboratory animal care and facilities, it has been announced by Dr. Melvin M. Rabstein, president of the Animal Care Panel.

President Rabstein appointed Dr. Bennett J. Cohen, assistant professor of physiology and director of the vivarium, University of California Los Angeles School of Medicine, as principal investigator for the project.

Among co-investigators named was Dr. Thomas Clarkson, associate professor of experimental medicine and director of the vivarium, Bowman Gray School of Medicine of Wake Forest College.

AMERICAN COLLEGE OF GASTROENTEROLOGY

Dr. Theodore S. Heineken of Glen Ridge, New Jersey, first vice-president of the American College of Gastroenterology, has assumed the office of president.

Dr. Louis Ochs, Jr., of New Orleans, Louisiana, who was inaugurated as the president of the annual banquet of the College in Cleveland, Ohio, October, 1961, submitted his resignation to the Board of Trustees, citing poor health as the reason for his relinquishing the presidency.

INTERNATIONAL CONGRESS OF DERMATOLOGY

The twelfth International Congress of Dermatology will take place in Washington, D. C., September 9 to 15, 1962.

Five dermatological organizations in the United States and Canada are hosts for the congress, which will be held in the United States for the first time in 55 years. Sponsor is the American Academy of Dermatology; co-sponsors are the American Dermatological Association, the American Medical Association Section on Dermatology, the Society for Investigative Dermatology, and the Canadian Dermatological Association.

Dr. Donald M. Pillsbury of Philadelphia is president of the Congress. Chairman of public relations is Dr. J. Lamar Callaway of Durham.

PHARMACEUTICAL MANUFACTURERS ASSOCIATION

American pharmaceutical manufacturers have urged that the United States not ratify, in its present form, a United Nations proposal to replace all individual international agreements on the control of narcotics with a single document.

The U. S. producers contend that the proposed "Single Convention on Narcotics" would permit countries that now produce no opium to do so, thus compounding existing problems of international narcotics control.

In a resolution sent by the Pharmaceutical Manufacturers Association (PMA) to Secretary of State Dean Rusk, the drug makers urged the

United States instead to encourage complete ratification of the stronger 1953 U. N. Opium Protocol. This agreement would effectively limit opium production to countries that traditionally have produced it. Ratification by only one more opium-producing nation stands in the way of its implementation. Two nations are reported considering signing it.

GUILD OF PRESCRIPTION OPTICIANS OF AMERICA, INC.

Owing to the wide variety and sometimes confusing array of definitions of an optician, the Guild of Prescription Opticians of America, Inc., has selected an explanation which lends itself to a fuller understanding of what to expect when a prescription for eyeglasses is filled.

Found in the Dictionary of Occupational Titles of the United States Employment Service, the dispensing optician is defined as one who . . . "Fills prescriptions for eyeglasses in a retail optical goods establishment, interprets prescription of oculist or optometrist to determine lens specifications. Measures facial contours of wearers to determine size and shape of frames and lenses best suited to wearer's needs. Prepares and delivers work order specification to workers engaged in grinding and mounting lenses.



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U. S. vitamin & pharmaceutical corporation

Receives finished spectacles and makes necessary adjustments to fit wearer."

Some see the need perhaps to bring even this definition up-to-date—for example, "filling prescriptions" may involve as well the fitting of subnormal vision aids, contact lenses and artificial eyes. However, the definition does illustrate accurately and concisely the minimum services which the eyeglass wearing public can expect of the dispensing optician.

The wide dissemination given by the Guild to this "authoritative" definition has been hailed as a public service.

LIFE INSURANCE MEDICAL RESEARCH FUND

Paul F. Clark, chairman of the board of John Hancock Mutual Life Insurance Company, has been elected chairman of the Life Insurance Medical Research Fund for 1962-1963.

The Life Insurance Medical Research Fund was founded in 1945. A non-profit organization, it is supported by 135 life insurance companies in the United States and Canada. The fund has awarded \$13,770,000 for heart research since it was organized. Its grants for medical research and education are made with the assistance of an Advisory Council of distinguished heart research specialists.

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Secretary of Health, Education, and Welfare Abraham Ribicoff has announced completion of a special Task Force report on the control of syphilis in the United States.

Chairman of the 5-member group appointed last year by Dr. Luther L. Terry, Surgeon General of the Public Health Service, is Dr. Leona Baumgartner, New York City Health Commissioner.

In its report to the Surgeon General, the Task Force pointed out that almost 19,000 persons contracted infectious syphilis during the fiscal year 1961, the highest number of cases since 1950. The group added that it is "particularly disturbed" with:

1. Evidence of a chain reaction in the spread of syphilis infection, especially among teenagers.
2. Evidence that the actual number of cases occurring far outnumbers the cases reported.
3. Evidence that effective techniques of control and therapy to stop the spread of syphilis are available but not applied widely enough.
4. Evidence that unless a vigorous, stepped-up program is inaugurated now, the increased



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spread of syphilis currently being observed may be accelerated.

However, according to the report "it is the consensus of the Task Force that the rising trend of infectious syphilis can be reversed through intensification and further improvement of the casefinding process, through quicker access to, and use of, operational information, through increased participation in venereal disease control by private physicians, and through a fact-based, plain-talking venereal disease education effort."

Setting a 6 point 10-year goal for the elimination of syphilis as a public health hazard, the Task Force called for:

An intensive national effort providing for at least two visits a year by a qualified health worker to the country's 100,000 general practitioners and one visit per year to the remaining 130,000 physicians.

Establishment of a program to insure that all blood processing laboratories report to health departments all positive specimens by name of patient.

Intensification and extension of current interview-investigation services to cover all infectious syphilis cases.

Development of a comprehensive and dynamic education program for professional workers and the general public.

Continuation of research in syphilis immunology, therapy, and laboratory procedure together with greater expansion of research in adolescent and young adult sex behavior.

Unstinted support of the program by federal, state, and local governments even after the reported number of syphilis cases begins to decline.

The Task Force estimated the cost of its proposals at \$3½ million annually over funds presently available.

The study committee was appointed in conformance with an instruction from the House Appropriations Committee. In last year's report on the Department of Health, Education, and Welfare budget, the Committee said it would expect recommendations this year from the Public Health Service for an effective campaign against syphilis.

Classified Advertisements

A G.P. to take over permanently, active, large, established suburban practice near Asheville, North Carolina. gross income range \$35,000 to \$40,000; leaving in July to do residency. Inquiries confidential. Reply to Box 790, North Carolina Medical Journal, Raleigh, N. C.

FOR SALE: Equipment, instruments, operating lamps, suction pump, etc. of deceased Otolaryngologist, good value. P. O. Box 788, Statesville, North Carolina.

VETERANS ADMINISTRATION

Even long-hospitalized schizophrenic patients are being restored to community life at the Veterans Administration's Fort Meade, South Dakota, mental hospital through an experimental program that increases their contacts with other people.

Dr. Robert B. Ellsworth said the new program shows a discharge rate of 53 per cent for long-term chronic patients after 30 months, as compared to the hospital's previous 3 per cent discharge rate for this kind of patient.

Dr. Ellsworth, the hospital's research psychologist who devised the experimental rehabilitation program, said emphasis was on psychiatric aides spending more time talking to patients about matters related to the treatment program and planning and participating in treatment activities with them. At the beginning of the experimental program, the aides were so spending about 15 per cent of their "on duty" time, but within four months they had increased this to 85 per cent, he said.

The Month in Washington

Reports by the American Medical Association and the Department of Health, Education and Welfare showed that 38 states have taken advantage of the Kerr-Mills law providing medical care for the aged with a total expenditure of \$121 million in the first 15 months of the program.

Citing the program's wide acceptance, Dr. Leonard W. Larson, president of the A.M.A., said that 27 states had enacted Kerr-Mills Medical Assistance to the Aged (MAA) programs and 11 other states had expanded Old Age Assistance (OAA) medical benefits under the new law.

The American Medical Association has again endorsed a legislative proposal that the federal government help finance construction of new medical schools and expansion and modernization of existing ones.

Dr. Gerald D. Dorman of New York City, a member of the A.M.A. Board of Trustees, told the House Interstate and Foreign Commerce Committee:

"We believe that there is need for assistance in the expansion, construction and re-

From the Washington office of the American Medical Association

modeling of the physical facilities of medical schools, and, therefore, a one-time expenditure of federal funds on a matching basis is justified, where maximum freedom of the school from federal control is assured."

Dr. Dorman was presenting the A.M.A. position on the Kennedy Administration's 10-year, \$932 million program (H.R. 4999) for federal aid to medical education. The legislation also proposed scholarships for medical and dental students.

"If the high standards of medical education are to be maintained, increased attention must be given to the adequacy of physical facilities, the availability of qualified instructors, and the availability of teaching material and patients for the clinical phases of medical education," Dr. Dorman said. "Any attempt to increase the number of medical students without regard to these conditions will result in a lowering of the standard of medical education. At this time, priority should be given to an increase in the physical facilities available for medical education."

Dr. Dorman said the A.M.A., had not taken a position on the other sections of H. R. 4999. However, he reviewed related A.M.A. programs.

"For some time, the American Medical Association has been aware of the decline in the number of eligible college students seeking admission to medical schools," he said. "This apparent shift away from medicine is due, in part, we believe, to the high cost in time and money of securing a medical education. This trend has been accentuated by a dramatic emphasis on careers in science and engineering. . .

"The House of Delegates of the American Medical Association in November, 1960, established two programs, the objectives of which are complementary and interrelated.

"First, the House authorized a student honors and scholarship program designed to focus attention on careers in medicine, to attract a substantial group of able students to prepare for admission to medical schools and to assist financially a limited number of outstanding students who, for financial reasons, are to pursue a career in medicine.

"Second, the A.M.A. House of Delegates has adopted a student loan program designed to

alleviate the financial difficulties of medical students and to encourage career decisions in favor of medicine."

Dr. Dorman also pointed out that in the past 10 years the A.M.A. in collaboration with the Association of American Medical Colleges, had aided interested organizations in the establishment of six new medical schools. Currently, commitments have been obtained for another five schools and we are in consultation with 16 institutions or organizations presently contemplating the establishment of new medical schools," he added.

In Memoriam

Henry Stokes Munroe, M.D.

Dr. Henry Munroe, the son of a Presbyterian minister, was born in Prince Edward County, Virginia. He was reared in Hickory and Lenoir, North Carolina, where his father held pastorates.

In 1895 he entered Davidson College, and in 1899 was graduated as salutatorian of his class. He was an honor student at Davidson, receiving both the essayists' and debators' medals, as well as being elected to Phi Beta Kappa. He was a member of S.A.E. social fraternity.

His uncle, Dr. John Peter Munroe, was president of the North Carolina Medical College at Davidson, and under his uncle's tutelage he began the study of medicine and graduated with the M.D. degree in 1902. He then attended Jefferson Medical College, finishing his postgraduate study in 1903. At Jefferson his work was of the highest standard. Gold medals in orthopedic and genitourinary surgery were conferred on him by the college.

In 1903 he came to Charlotte and served as resident physician at the Presbyterian Hospital for one year. In 1904 he was elected professor of surgery at North Carolina Medical College.

In 1906 he resigned his professorship to enter the private practice of surgery in Columbus, Georgia, where he served on the surgical staffs of the Rose Hill Sanatorium and the Columbus City Hospital. He was elected president of the Muskogee County and Chatahoochee Valley Medical Societies. During World War I he was a member of the Medical Advisory Board of Georgia.

In 1906 Dr. Munroe married Annie Laurie McDuffie. They had four children.

In 1902 he moved to Charlotte and opened his office for the practice of surgery. He continued in this practice until his retirement in 1958. He was a charter member of the Mecklenburg County Medical Society and was honored by that society on the occasion of its fiftieth anniversary in 1953.

In 1917 Dr. Munroe was honored by the Charlotte Chapter of Hadassah when that group had his signature microfilmed and enclosed in a silver cartridge to be enclosed in the corner stone of a proposed hospital in Jerusalem.

Dr. Munroe held membership in the Mecklenburg County Medical Society, the Medical Society of the State of North Carolina, the Tri-State Medical Association, the Southern Medical Association; the American Medical Association, and was a Fellow of the American College of Surgeons. He was also a member of the Covenant Presbyterian Church, in which he had been a ruling elder for many years.

Dr. Munroe was one of those rare individuals whose character was rock-ribbed and uncompromising, but who was never critical of the weaknesses of others. His whole being radiated goodness. He could meet the disappointments and buffeting of life without complaint. His thoughtfulness and unselfishness endeared him to his patients and to his medical colleagues. He never sought high honors or the praise of men, but was quick to rejoice in the success of others.

He was an excellent surgeon, and his judgment and ability were respected by his colleagues; he was almost worshipped by his patients. Truly it could be said of him, "His life was gentle and the elements so mixt in him that nature might stand up and say to all the world, 'This was a man.'"

* * * * *

Benjamin Franklin Cozart, M.D.

WHEREAS ON November 27, 1961, the members of the Rockingham County Medical Society experienced a great loss in the death of Dr. B. F. Cozart, and

WHEREAS WE, as his fellow physicians, will greatly miss his gracious, kind, and understanding friendship and his loyalty and devotion to his friends in this association, and

WHEREAS WE know full well the loss to be felt by his many loyal and devoted patients, to whom he so faithfully rendered the utmost in love, kindness, and the best of medical treatment; be it therefore

Resolved that a copy of this resolution with our condolences be sent to his widow, Helen N. Cozart; a copy be put on the permanent records of this Society, and a copy be sent to the newspapers of this county.

C. H. Moricle, M.D.

William Hester, M.D.

C. G. Payne, M.D.

* * * * *

James Nathaniel Taylor, M.D.

James Nathaniel Taylor was born in Rock Hill, South Carolina, October 17, 1880, and died January 10, 1962.

He graduated from Erskine College and received his M.D. degree from the Medical College of Virginia in the class of 1900. He was the only surviving member of his class.

Dr. Taylor began the practice of medicine as a general practitioner in Bynum, North Carolina. Later he practiced in Raleigh, Burlington, and Graham.

Upon leaving Graham, he went to New York for postgraduate study in internal medicine at the Polyclinic. In 1921 he came to Greensboro where he specialized in internal medicine until 1950. At this time he associated himself with the Veteran's Administration in Winston-Salem. It was not until 1959 that he retired from this position.

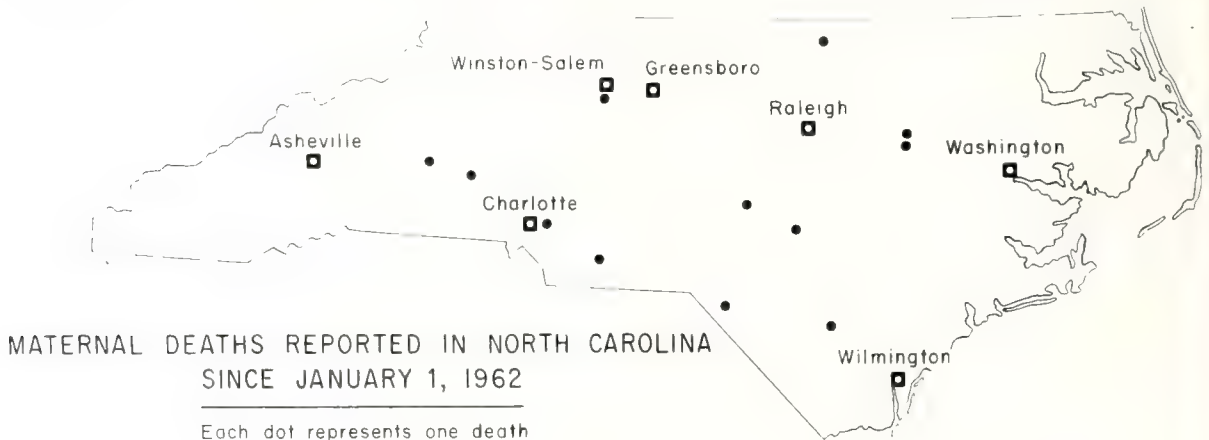
Dr. Taylor was a member of the Guilford County Medical Society, the North Carolina State Medical Society, and the American Medical Association. He was a Scottish Rite Mason, with membership in the Oasis Temple.

He was married to the former Miss Annie Bynum. To them were born three sons—Joseph W., James Bynum, and W. Wallace.

Dr. Taylor was a quiet, gentle man who was keenly interested in medicine and always gave his patients first consideration. He was most loyal to his family, his church, and to his community. It can be truthfully said that in the passing of Dr. Taylor, Greensboro has lost one of its finer citizens.

Obituary Committee

Guilford County Medical Society



NORTH CAROLINA

Medical Journal



April, 1962
Vol. 23 No. 4

IN THIS ISSUE:

Recent Trends in Infant Mortality in North Carolina

James R. Abernathy, M.S.P.H. and James F. Donnelly, M.D.



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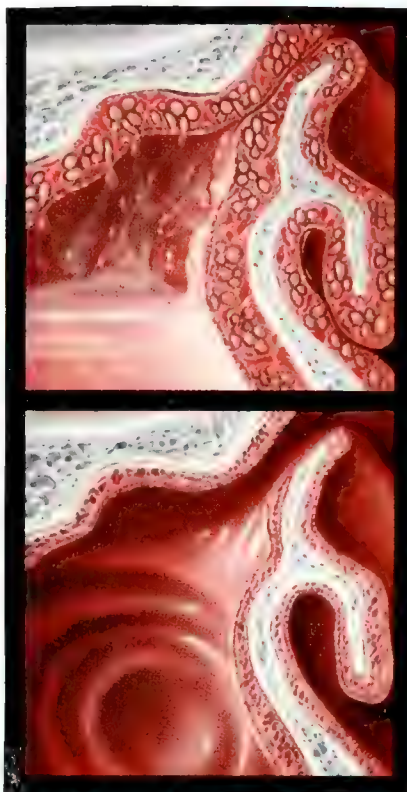
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Suggested daily dosage in hay fever:
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Supplied in bottles of 30, 100, and 500 tablets:

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Available in plastic nasal sprays for adults (1½%) and children (¼%), in dropper bottles of ⅛, ¼ or 1 per cent.

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1. Grant, L. E.: Coryza and nasal sinus infections, *Clin. Med. & Surg.* 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): *Current Therapy* 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, *Journal-Lancet* 79:535, Dec., 1959.

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Recent Trends in Infant Mortality in North Carolina

JAMES R. ABERNATHY, M.S.P.H.

and

JAMES F. DONNELLY, M.D.

RALEIGH

The reduction in infant and neonatal mortality in the United States has been widely acclaimed. Moriyama's recent report¹ of changes in the trend over the past 25 years, however, shows a slowing in the rate of decline. The Children's Bureau and other federal agencies have been seeking to determine the causes of these changes, which have affected states in all sections of the country. Many hypotheses have been advanced, and still the search for an answer continues.

Object and Method of Study

North Carolina's experience with regard to infant and neonatal mortality during the past 25 years has been similar to that of the nation as a whole in many respects, but different in others. The purpose of this paper is (1) to compare the trend in North Carolina over this period with that in the United States, and (2) to take a closer look at the changes in the North Carolina rate since 1952, with a view to identifying the causative factors. Our study has been instrumental in linking to the change such factors as improved registration practices, as well as age, race, birth weight, and cause of death.

In the section comparing the mortality trends in the state and nation, the slopes of the trend lines were computed by the method of least squares. The points of inflection were arbitrarily selected after an examination of the plotted data.

Infant Mortality Trends Since 1933— United States and North Carolina

Infant deaths by race

For years infant mortality declined rapidly both in North Carolina and in the United States as a whole (fig. 1). In recent years, however, a slowing of the rate of decline has been a matter of concern, particularly to those in the field of maternal and child health. In the United States, infant mortality decreased approximately 4.3 per cent from 1933 to 1949; beginning about 1950, however, the rate of decrease dropped to 2 per cent per year. In North Carolina, the death rate decreased about 5.0 per cent per year from 1933 to 1947, when the annual rate of decline dropped to 1.3 per cent. The infant death rate was consistently higher in this state than in the nation over this period.

In the United States, the mortality trend for white infants was similar to the trend for all infants. In North Carolina, the white rate decreased at a rate of 5.0 per cent per year until 1954, when the downward trend gave way to an upward trend of 2.0 per cent yearly, which continued through 1959. This reversal among white infants is not present in the United States data.

The trend of non-white infant mortality in North Carolina is similar to that for the nation prior to the change in the trend line. At that point (1947) the North Carolina rate leveled off, while that for the United States continued to decline at the rate of 1.2 per cent per year.

From the North Carolina Department of Public Health, Raleigh, North Carolina.

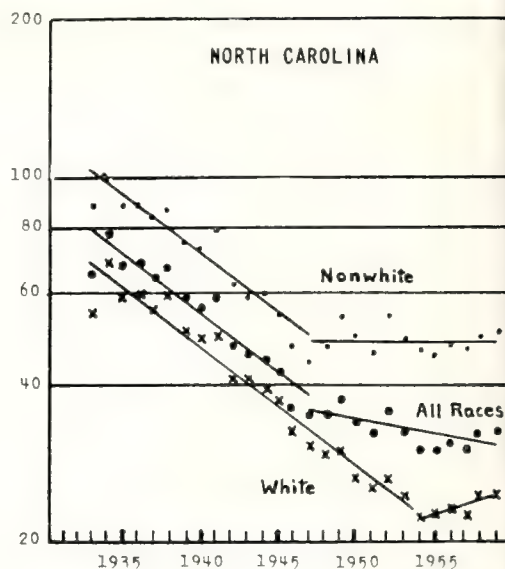
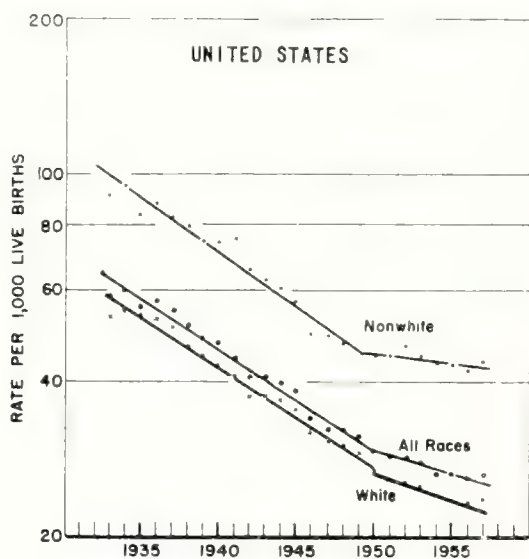


Figure 1

The United States data show similarities in the trend lines for white and non-white infants. The point of inflection occurred at about the same time for both, and the trends continued downward at a slower rate after that point. For North Carolina, the point of inflection in the non-white rate occurred seven years before that of the white, and after the change the non-white rate leveled off while the white rate increased.

Neonatal and postneonatal deaths by race

The postneonatal death rates for white infants in both the United States and North Carolina were characterized by an annual decline of slightly more than 5 per cent from 1933 to 1945; a precipitous drop between 1945 and 1946; followed by a slight reduction in the rate of decline after 1946 (fig. 2).

In comparing the white neonatal rates for

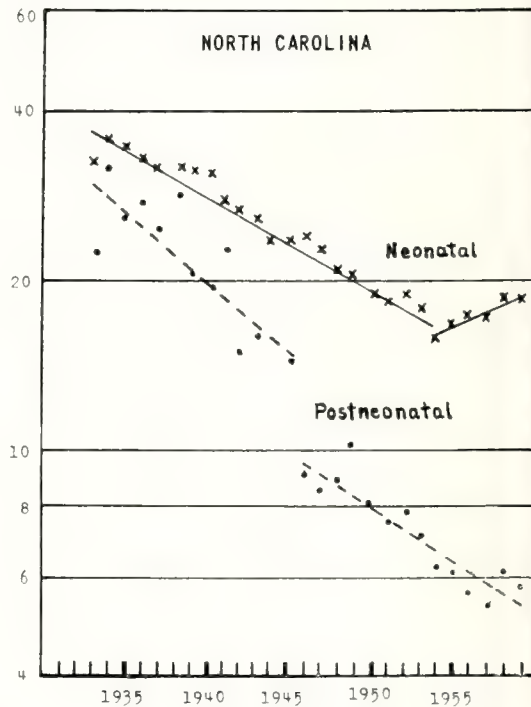
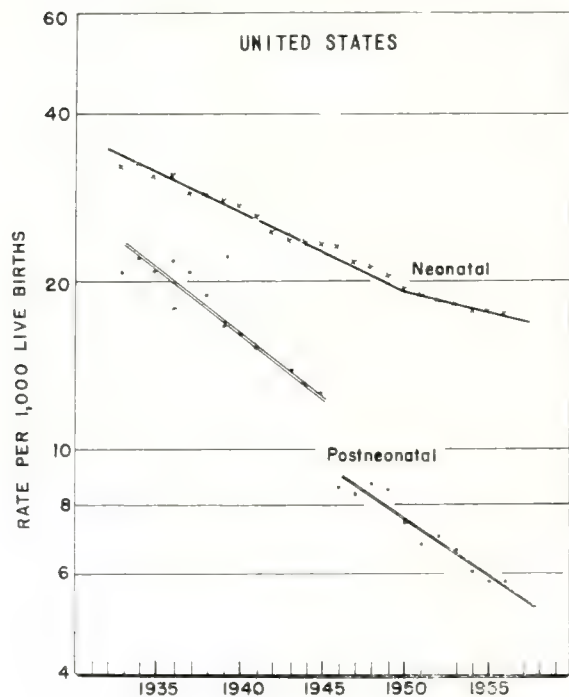


Figure 2

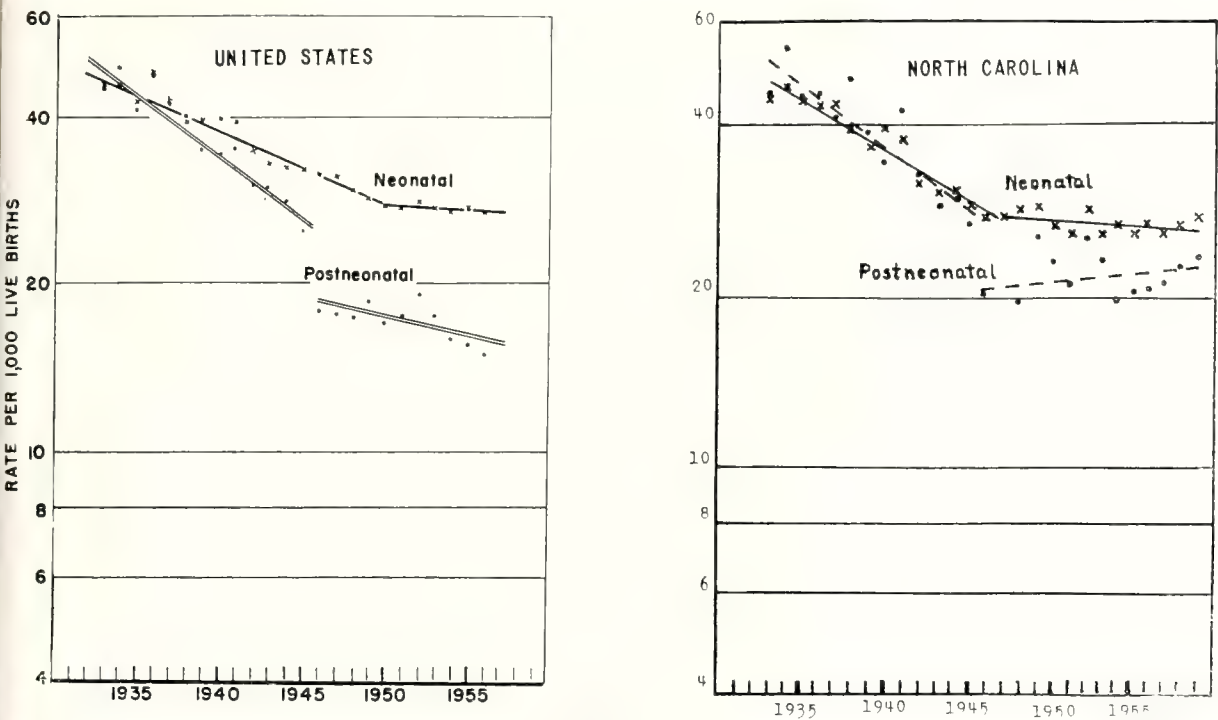


Figure 3

the state and nation, it is clear that the pattern is the same as that noted in the white infant mortality trends: that is, the national rate continued to decline at a decelerated rate after 1950, while the North Carolina rate continued downward from 1933 to 1954, at which time an upward trend began.

The non-white postneonatal rates for

North Carolina (fig. 3) is like its national counterpart except that the slope of the state trend line is steeper and the point of inflection occurred about three years earlier than for the United States.

The non-white postneonatal rates for both North Carolina and the United States decreased at a rate of 5 per cent per year

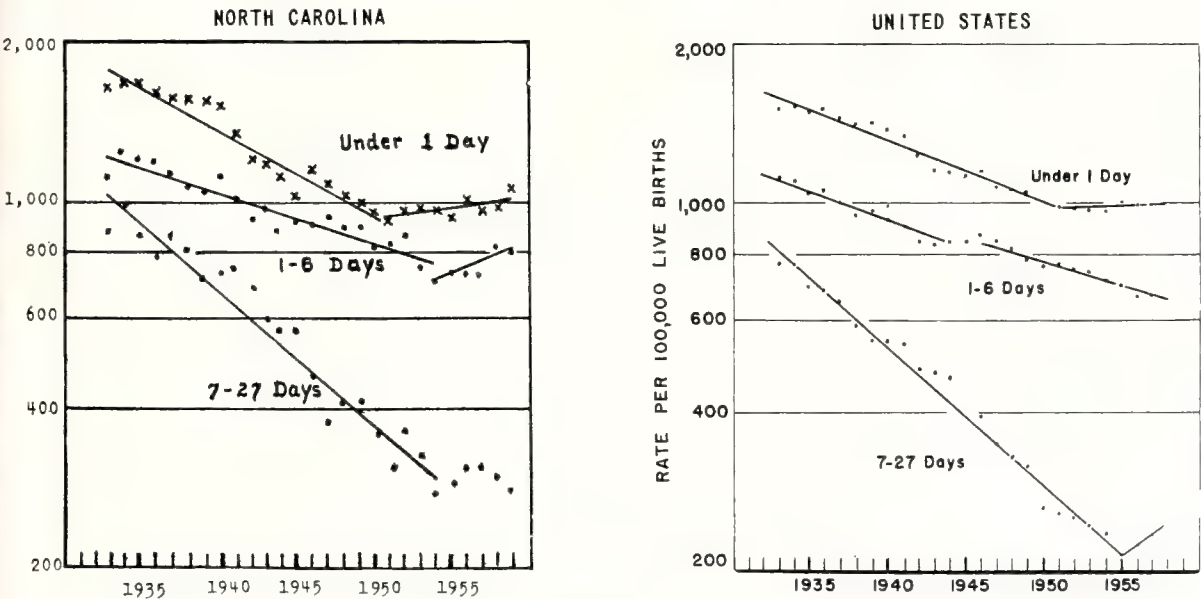


Figure 4

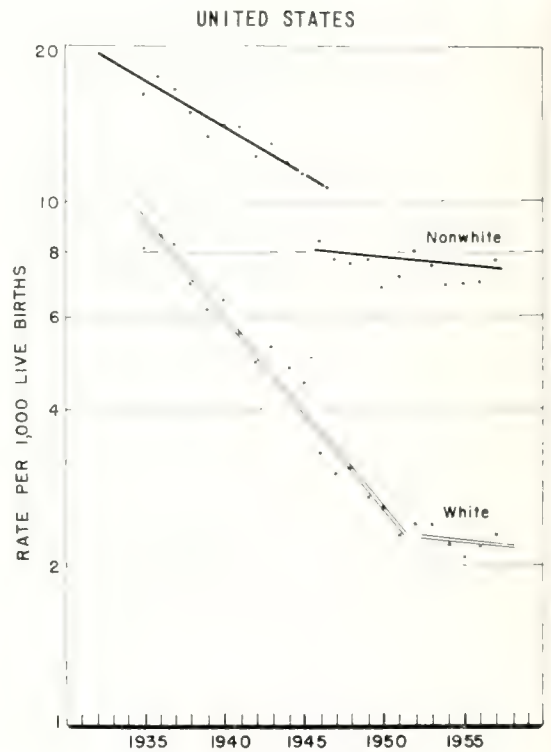
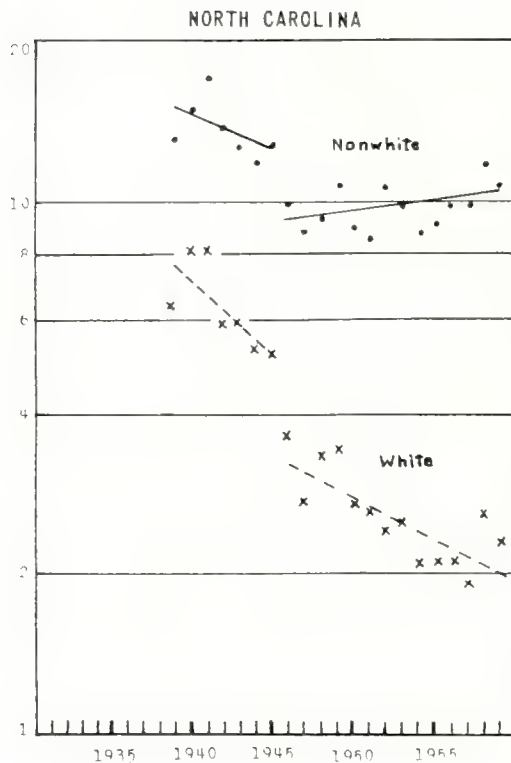


Figure 5

from 1933 to 1945. A sharp drop occurred between 1945 and 1946. Then, beginning in 1946, the North Carolina rate began to increase at the rate of 0.7 per cent annually, while the national rate continued to decline by 1.5 per cent per year.

As Moriyama points out, a significant feature of postneonatal death trends in the United States is the sharp drop between 1945 and 1946. He ascribes this reduction primarily to a decline in deaths from influenza, pneumonia, diarrhea, and enteritis in 1946. The availability of penicillin and DDT for civilian use was thought to be the probable cause of this decrease. A similar reduction between 1945 and 1946 is apparent in the North Carolina data, and there is evidence that it may have been due to the same cause.

Neonatal deaths by age

Deaths under one day of life follow the same trend in both the United States and North Carolina (fig. 4). The points of inflection occurred about 1951. The rate then leveled off in the nation and slightly increased in North Carolina.

For infants 1 to 6 days of age, the rate of decline in the United States appears to be unchanged during the entire period except for a slight break in 1944 and 1945. The state trend fell from 1933 to 1954 at the rate of 2.1 per cent per year. It then began to rise at the rate of 2.8 per cent and continued thus thereafter.

For infants 7 through 27 days of age, the rates declined rapidly in both areas until around 1955. State trend leveled off and the national trend increased.

Trend by cause of death

Owing to the lack of available data on the cause of death and to the problem of comparison resulting from changes in the International Classification, no attempt was made to analyze the North Carolina data in the same detail as Moriyama did for the United States. Data on infant death rates for influenza and pneumonia and congenital malformations, however, are shown in figs. 5 and 6 respectively.

Among non-white infants, a sharp drop is noted in deaths from influenza and pneumonia between 1945 and 1946 in both the

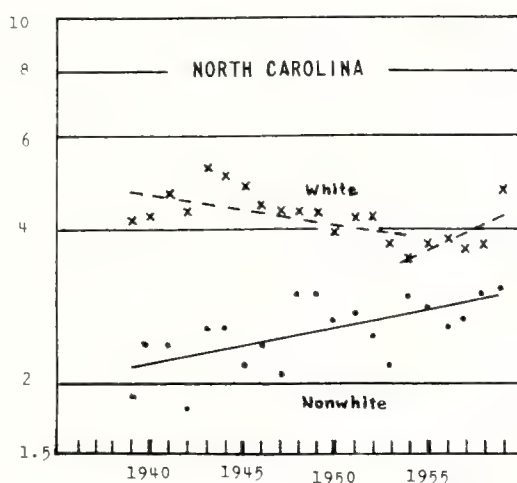
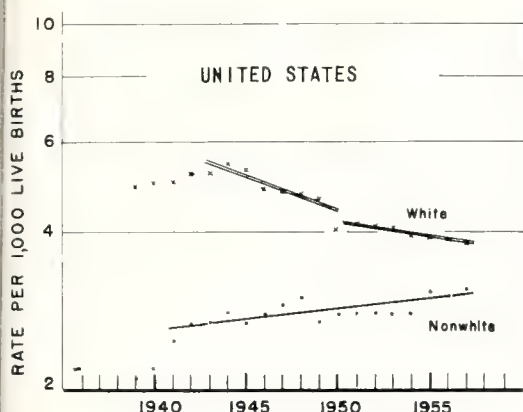


Figure 6

state and nation. The national trend continued downward at a markedly decelerated rate, while the North Carolina trend rose at a rate of 1 per cent per year. Although somewhat obscured in the graph showing United States data, a sharp fall also occurred between 1945 and 1946 among white infants. The same is true for North Carolina. Following this fall the rate of decline slowed down in North Carolina, but continued in the United States until 1951.

In the United States the mortality trend for congenital malformations among white infants has been declining, while among non-white infants it is increasing. In North Carolina, however, the trend among white infants has been upward since 1954.

Summary

The comparison between infant mortality trends in North Carolina and the United States as a whole might be summarized as follows: Trends in both areas have shown changes during the past 25 years, ranging from a slight deceleration to a complete reversal. Both races have been affected. The change in trend among white infants in North Carolina occurred about 1954, approximately five years after the change in the national trend. The non-white trend in North Carolina changed around 1947, two or three years earlier than that for non-whites in the United States.

The major difference between state and national trends in neonatal mortality is that the North Carolina rate for white infants

began to rise in 1954, while the national trend continued downward. Non-white post-neonatal trends are much alike in both areas. White postneonatal trends are also similar. The non-white postneonatal trend in North Carolina, however, extends upward, while its United States counterpart continues downward.

The white death rate from pneumonia and influenza show similar trends in both areas. The non-white trend in North Carolina is upward after 1946; the national trend, on the other hand, is downward. National and state trends in deaths from congenital malformations are alike for non-white infants but unlike among white infants in that the North Carolina trend is up while the United States trend is down.

Infant Mortality Since 1952

North Carolina

The North Carolina State Board of Health is handicapped in analyzing infant mortality data in detail over a long period of time because of the lack of punch cards for the years prior to 1951. In 1952, however, we began the preparation of a punch card designed to consolidate data from the birth and death certificates for all infant deaths. The following section of this report will be an attempt to place the spotlight on the last eight years shown in previous graphs, and to point up some of the possible reasons for changes that have occurred in the rates during that time.

It should be emphasized that the rates

previously shown were based on birth and death certificates *received during the period*, regardless of the year of birth. The rates referred to hereafter are based upon deaths reported among infants *born during the period*. For this reason, the rates for the same years will not necessarily be the same. The trends, for the most part, are unaffected, however. Because of changes in both the horizontal and vertical scales, care should be exercised in comparing graphs in the following section with those previously shown.

In addition to age at death, North Carolina infant mortality rates since 1952 were examined for changes in parity and age of the mother, birth weight, special efforts in registration, and cause of death. This was done in an attempt to account for changes in the trend.

There has been some change in the distribution of live births by parity and age of mother over this period, but not enough to influence the mortality rates appreciably.

Birth weight and special efforts in registration

The proportion of infants weighing less than 2500 Gm. at birth has increased since 1954 at a rate of about 1.5 per cent per year for both races. Since this is a high-risk group, an increase in mortality would be expected. The percentage of live-born infants weighing between 2500-4000 Gm. has remained fairly stable, while the percentage of infants weighing more than 4000 Gm. has decreased approximately 2.5 per cent per year since 1954.

Since 1956, registration of infant deaths has improved as the result of special studies conducted by the State Board of Health. These studies dealt primarily with neonatal deaths, and were responsible for the registration of several hundred death certificates that we feel certain would not have been registered otherwise. The registration of these deaths is reflected in the mortality rates since 1956.

In order to determine the influence of these two factors—birth weight and special studies—on mortality, adjusted rates by age at death were computed and compared with

the unadjusted rates (fig. 7). The distribution of live births by birth weight and race in 1954 was used as the standard. Death certificates received through the special studies were excluded. The non-white infant death rates are reduced to the "leveling off" stage; while the adjusted whites rates, though reduced, have continued to rise since 1956. The white postneonatal rates were unaffected by the adjustment; the non-white postneonatal rates are slightly reduced.

Similarly, the non-white neonatal rates leveled off as a result of the adjustment, while the white adjusted rates were lower but continued to show an upward trend.

In the neonatal breakdown by age, the non-white adjusted rates again level off, while the white adjusted rates follow the pattern described above. The under-one-day death rates are influenced most, the 7-27 day rates least, by the adjustment.

A recent report from Baltimore² attributed the rise in infant mortality since 1957 to an increase in the death rate among premature infants. This factor was investigated in the North Carolina data and ruled out. The mortality rate among infants weighing 1000 Gm. or less at birth has increased for both races since 1955, even after death certificates received through special studies were eliminated. The increase nevertheless is probably a result of promotional efforts in death registration. Mortality rates of premature infants weighing between 1000 and 2500 Gm. have shown no increase since 1952.

Cause of death

Neonatal and postneonatal death rates by cause of death, age at death, and race since 1952 are shown in figures 8 and 9. If the death rates for any particular age group were less than 0.1 per 1000 live births, the rates were intentionally omitted from the graphs. For this reason some of the graphs have more lines than others.

Infections comprise a composite category which includes the following: infective and parasitic diseases (International List nos. 001-138), acute upper respiratory infections (470-475), influenza and pneumonia (480-493), pneumonia and other infections of the

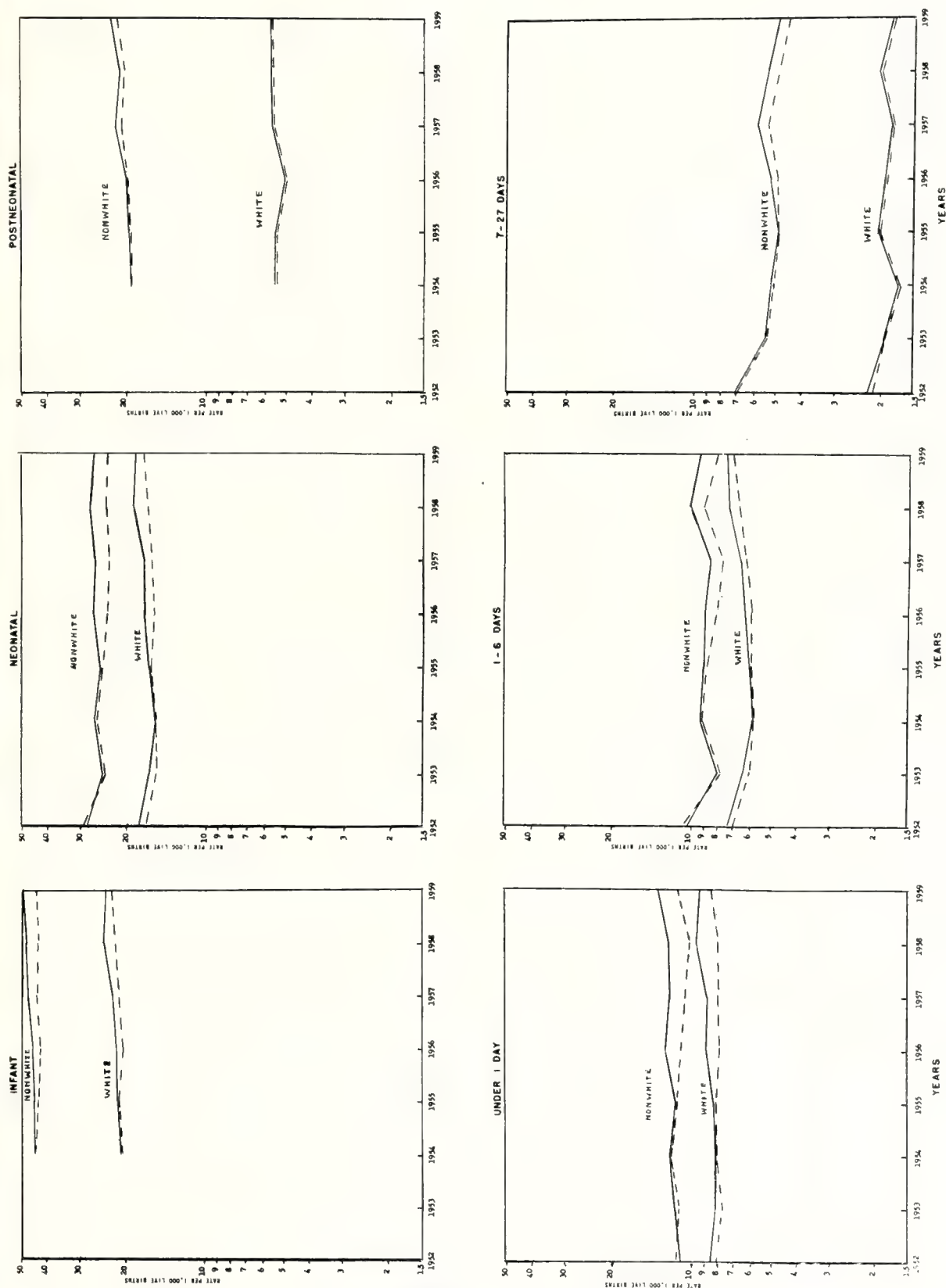


Figure 7

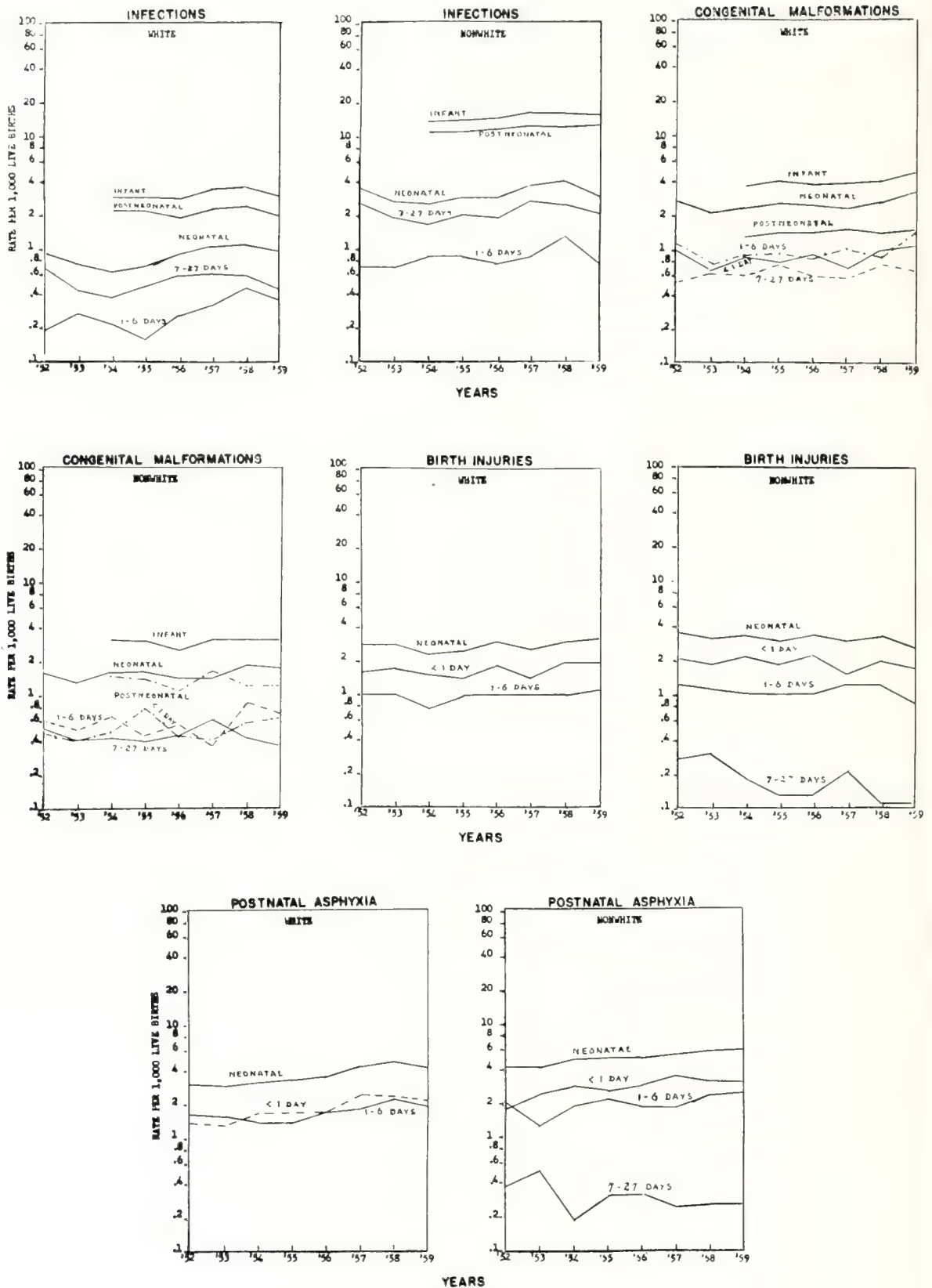
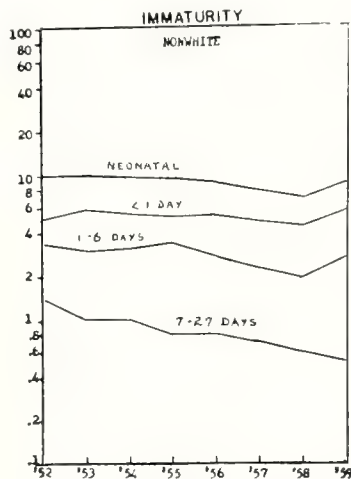
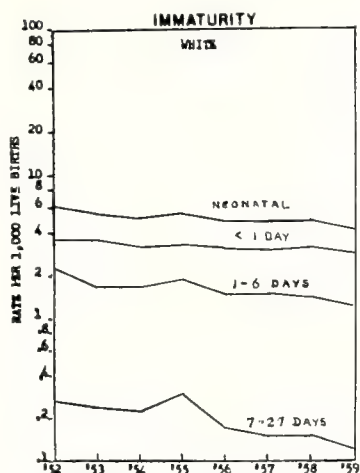
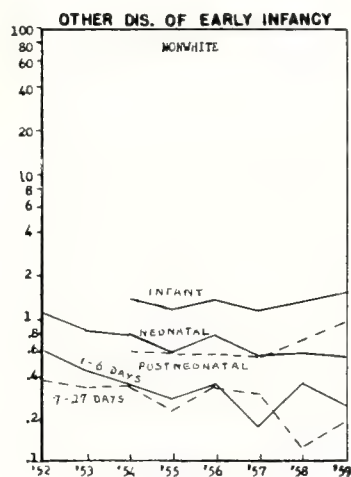
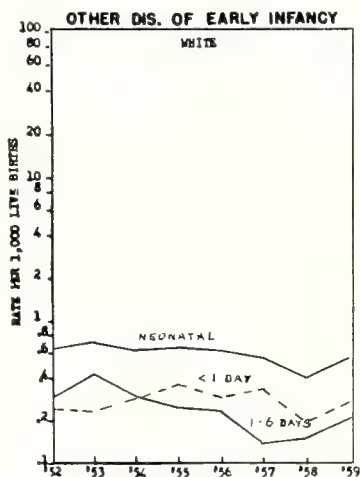


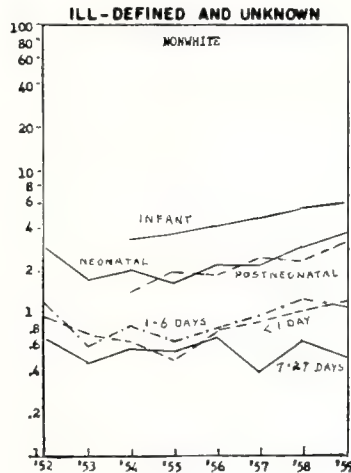
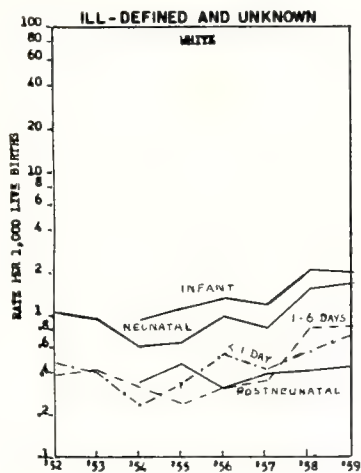
Figure 8



YEARS



YEARS



YEARS

Figure 9

Table 1
Number of Deaths Among Infants,* By Cause, Age, and Race
North Carolina, 1959

Cause of Death	Total		White		Non-white	
	Neonatal	Post-neonatal	Neonatal	Post-neonatal	Neonatal	Post-neonatal
All causes	2,331	1,226	1,374	427	957	799
Infections	179	603	72	155	107	448
Meningitis ¹	4	9	3	1	1	5
Infective and parasitic diseases ²	10	51	1	14	6	37
Acute upper respiratory infections ³	5	21	1	5	4	16
Influenza and pneumonia ⁴	113	392	48	106	65	286
Gastroenteritis and colitis ⁵	27	130	7	26	20	104
Other infections of newborn ⁶	20	—	9	—	11	—
Congenital malformations	295	156	235	113	60	43
Birth injuries	321	3	227	2	94	1
Postnatal asphyxia and atelectasis	516	1	310	2	206	2
Immaturity ⁷	622	18	306	6	316	12
Other diseases of early infancy ⁸	60	12	39	1	21	38
Accidents	21	117	6	47	15	70
Ill defined and unknown ⁹	233	150	123	33	110	117
All other	84	133	56	65	28	68

*Deaths among infants born in 1959
International list category
1. 340
2. 001-138
3. 470-475
4. 480-493, 763
5. 5710, 764
6. 765-768
7. 774-776
8. 770-772
9. 773, 780-795

newborn (763-768), and gastroenteritis and colitis (571.0). The neonatal death rate for infections rose from 1954 through 1958 for both races. The highest death rates from these causes are found in the postneonatal category, which for both races has also risen during the past few years. Pneumonia and influenza, gastroenteritis and colitis comprise more than 85 per cent of deaths from infections in the postneonatal period. The death rates for infections declined in 1959.

The trend of neonatal mortality from congenital malformations among white infants has been upward since 1953, owing primarily to increases in the deaths of infants under 1 week of age. The neonatal trend for non-white infants is also upward, but to a lesser extent. The postneonatal trend for white infants is slightly upward; among non-white

infants there has been little change over this period.

Birth injuries are an important cause of death in the first week of life among both races. Deaths from this cause among white infants have risen since 1954, while remaining stable among non-white infants.

Postneonatal asphyxia and atelectasis, another important cause of death in the first week of life, exhibits an upward trend since 1953 for both white and non-white infants.

Immaturity, although considered an "ill-defined" category, claimed one-third of all neonatal deaths in 1952. Deaths from this cause have been declining for both white and non-white infants since 1952.

"Other diseases of infancy" from another composite category and include deaths due to hemolytic, hemorrhagic, and nutritional diseases. The neonatal rates for these condi-

tions have been declining for the past several years. An increase is noted in the postneonatal death rate among non-white infants since 1957.

Accidents constitute a relatively frequent cause of death among infants during the postneonatal period. There was, however, little or no change in the trend over this span of time.

Ill defined and unknown causes of death among infants are important because of the large number of cases falling into this category. Both neonatal and postneonatal rates have increased considerably in both races since 1952. Further analysis of this category is indicated.

The relative frequency of any disease determines its impact on the total mortality trend. As shown in table 1, immaturity, postnatal asphyxia and atelectasis, and birth injuries were the three leading causes of neonatal deaths in 1959, accounting for 63 per cent of all deaths. Next in order of importance were congenital malformations. With the exception of immaturity, the trend in mortality for these diseases has been upward. Ill defined or unknown causes of death are next in order of importance among neonatal deaths, and show a rising trend. Infections, accounting for only 8 per cent of neonatal deaths, ranked sixth in 1959. This category also exhibits an upward trend.

In the postneonatal period, infections—chiefly influenza and pneumonia—were predominant among causes of death. The mortality trend again is upward. Congenital malformations were second in order of importance, with little change in mortality trends since 1954.

Summary

The changes that have occurred in the

trend of infant mortality in North Carolina since 1952 are not limited to any particular age group nor to any race, but are evident in both the neonatal and postneonatal categories for both white and non-white infants.

Changes in the distribution of live births by birth weight and improved registration of infant deaths have had some effect upon the change in mortality trends, particularly in the neonatal category. Adjustments for these factors serve, at best, only to reduce the trend to the leveling off stage. Several of the perinatal causes of death, including postnatal asphyxia and atelectasis, birth injuries, and congenital malformations, have been involved in the changes in neonatal mortality.

In postneonatal mortality, infections seem to be the principal agent influencing the change which has taken place in recent years.

The problem of infant mortality in the United States was summarized, in part, by Moriyama as follows:

From the examination of the data, it would appear that no marked change downward in the infant mortality rate can be expected until the attack on influenza and pneumonia is altered . . . No substantial progress in reducing infant mortality will be made until there is a breakthrough in dealing with congenital malformations and the diseases of early infancy, such as birth injuries, postneonatal asphyxia, and premature delivery of infants."

These predictions are applicable not only to infant mortality in the United States, but to North Carolina as well.

References

1. Moriyama, I. M.: Recent Change in Infant Mortality Trend, Public Health Rep. 57: 381-405 (May) 1960.
2. Quarterly Statistical Report, Baltimore City Health Department, vol. 12, no. 4, March, 1961.

The American pharmaceutical industry . . . has served this country and the world very well, and still is. And the present powers of the FDA are quite adequate. And free enterprise is still preferable to medication according to the wisdom of Mr. Ribicoff or any of his probable successors. 1984 is approaching fast enough; let's not hurry it!—*Hawaii Medical Journal*, Nov.-Dec. 1961.

Tuberculosis and Cancer of the Lung

S. SOCHOCKY, M.D.

WILSON

Since Bayle¹ first described carcinoma of the bronchus and pulmonary tuberculosis in the same patient, there have been conflicting opinions as to the coexistence of the two conditions²⁻¹². The purpose of this study is to investigate the incidence, coexistence, and possible relationship between pulmonary tuberculosis and carcinoma of the bronchus in patients admitted to the Eastern and Western North Carolina Sanatoria from January 1, 1950, through December 31, 1959. Together these two hospitals serve 3,500,000 people living in 60 counties.

Classification of Cases

Patients admitted to these sanatoria during the 10-year period were classified as follows:

Table 1
Classification of Cases

	White		Non-White	
	Male	Female	Male	Female
Tuberculosis	3,842	2,766	2,104	1,773
Other thoracic diseases	1,124	588	423	206

The total number of patients admitted during the last decade was 12,826, of whom 10,485 had tuberculosis.

Of the number admitted, 194 had carcinoma of the bronchus; 123 of these cases were proved by histologic examination, and the remaining were strongly suggestive on the basis of clinical and radiologic findings. The distribution of confirmed cases of bronchial carcinoma according to age, sex, and race is shown in table 2.

Primary carcinoma of the bronchus was found in 112 cases and metastatic carcinoma in 11 cases. Squamous-cell carcinoma was identified in 53 cases, adenocarcinoma in 32, and oat-cell carcinoma in 26. The type of lesion was not recorded in 12 cases.

Presented at the Southern Tuberculosis Conference of the Southern Thoracic Society, Hot Springs, Arkansas, September 7, 1961.

From Eastern North Carolina and Western North Carolina Sanatoria.

Table 2
Distribution of Carcinoma of the Bronchus by Age, Sex, and Race

Age (Years)	White		Non-White		Totals
	Male	Female	Male	Female	
30-39	0	1	2	0	3
40-49	9	4	4	1	18
50-59	34	4	14	4	56
60-69	22	2	9	3	36
70 and over	7	0	1	2	10
Totals	72	11	30	10	123

The number of cases of pulmonary tuberculosis in which carcinoma of the bronchus developed later was 19; of these, 15 were primary and 4 were metastatic. Tuberculosis was proved by bacteriologic and carcinoma by histologic examination.

Clinical Features

Among the 19 patients with pulmonary tuberculosis in whom bronchial carcinoma later developed were 1 white female and 3 non-white males. Four patients were between the ages of 40 and 50, 8 were between 50 and 60, 5 were between 60 and 70, and 2 were over 70. There were no pathognomonic symptoms of carcinoma in the 19 tuberculous patients. The majority responded well to anti-tuberculous treatment and made satisfactory progress.

The initial symptoms in the 19 tuberculous patients are listed in table 3.

Table 3
Symptoms of Carcinoma

Symptoms	No. Cases
Cough, spitting of blood	4
Loss of weight	3
Pain	4
Progressive roentgen signs	3
Pleural effusion while under chemotherapy for tuberculosis	2
Unilateral wheezing	3
Clubbing of the fingers and toes	9
No specific symptoms	4

There were also no definite signs of developing carcinoma of the bronchus in the tubercular patients. Such signs as were

found are associated with almost any bronchopulmonary disease; however, the onset of a dull, almost continuous pain, clubbing of the fingers and toes, and a unilateral wheeze suggested a malignant process.

In this series of 19 cases, clubbing of the fingers and toes was found in 9 and a wheeze in 3 patients. The cases of carcinoma were evaluated as follows: minimal, 6; moderately advanced, 6; far advanced, 7. Classification according to type was squamous-cell, 6; adenocarcinoma, 2; oat-cell, 6; unrecorded 1. In 4 cases of metastatic carcinoma, 3 were diagnosed as adenocarcinoma and 1 as squamous-cell carcinoma.

The interval between the onset of tuberculosis and the onset of cancer varied widely: 16 years in 1 case, 12 years in 1, 5 years in 2, 4 years in 1, and about 1 year in 7. In 2 cases the two diseases developed at about the same time. Thus, in this series of 15 cases, the onset of pulmonary tuberculosis preceded the development of carcinoma in 13 cases, while in 2 cases both diseases were diagnosed at the time of the initial examination.

Laboratory Findings

The sputum contained acid-fast bacilli on direct examination in all 19 cases in this series; it was also positive on culture in 16.

In all 19 cases, histologic examination eventually was positive for carcinoma of the bronchus. Bronchoscopic examinations were done in 14 cases; cancer was revealed in 7. Of these 7 patients, 4 presented a mass in the lumen of the bronchus, and in 3 the bronchus was distorted by external pressure on the affected side. Histologic examination of bronchial tissue was positive in 4 cases, of scalene node in 5 cases. Two cases were diagnosed at biopsy later, 5 at operation, and 3 at autopsy.

Pathology

In 2 cases bronchoscopic examination revealed healed tuberculous endobronchitis with partial stricture and deformity of the right main stem bronchus. In the first case, carcinoma developed two years and in the second case four years after the onset of pulmonary tuberculosis on the same side;

however, microscopic sections of the resected specimens failed to show any evidence of active tuberculosis in the second case.

Microscopic examination of one of the resected specimens showed extensive fibrosis with strands of epidermoid cells of carcinoma. Adjacent to this were several old tubercles with caseous, necrotic centers.

The microscopic reports on 3 autopsies showed carcinoma cells and typical tubercles; in addition, microscopic examination in one of the cases showed "transition from a normal respiratory transitional epithelium to neoplastic squamous cells in the major bronchus. There was invasion of the bronchus and lung by neoplastic squamous-cell tumor that showed numerous anastomosing groups of squamous cells having well defined intercellular bridges. Walls of many bronchial tubes were destroyed. Some areas showed necrosis of a type closely resembling caseation. In these areas a foreign body giant cell was seen. Only one small focal area showed cells resembling epithelioid cells."

Roentgenography

Although there are no pathognomonic radiologic features of carcinoma of the bronchus developing in tuberculous patients, the following findings were noted in the chest films in this series of 19 cases.

1. In 7 patients a new shadow suggesting development of either tuberculoma or carcinoma was found; in all 7 cases, however, carcinoma of the bronchus was diagnosed.

2. In 5 cases there was an increase of shadows which later, after exclusion of other common causes, were found to be due to carcinoma.

3. Widening of the mediastinal shadows was observed in 3 cases, strongly suggesting, especially in the middle-aged and older patients, a malignant process.

4. A homogeneous and caviated atelectatic segment was found on chest films in 2 patients who were under chemotherapy for tuberculosis and whose acid-fast bacilli were sensitive to the drugs, thus suggesting malignancy.

5. A relatively sudden development of



Fig. 1. Case 1.



Fig. 2A. Case 1.

pleural effusion in patients receiving chemotherapy for tuberculosis was noted in 2 cases. It was later confirmed that this change was due to carcinoma of the bronchus.

The malignant lesion was situated in the right upper lobe in 10 cases, the right lower lobe in 2 cases, the left upper lobe in 5 cases, and the left lower lobe in 2 cases.

Illustrative Cases

Case 1

A 53 year old Negro man was diagnosed as having pulmonary tuberculosis in 1953. He underwent treatment at home, and a year and a half later was admitted to Eastern North Carolina Sanatorium with positive sputum. Roentgenograms on admission showed bilateral densities involving both upper lung fields, more on the right than the left (fig. 1). He was treated with streptomycin, INAH, and pneumoperitoneum, and was discharged home in 1956 with a recommendation to take 100 mg. of INAH three times daily. He did quite well until February, 1958, when he acquired a cough, and an examination of sputum was negative for acid-fast bacilli. This respiratory illness responded well to antibiotics, leaving such residual symptoms as general malaise and loss of appetite and weight.

On readmission in March 1958, the chest film showed an increase in the density observed on previous films, and shadows indicating widening of the mediastinum (fig. 2). His general condition deteriorated rapidly, and he expired on August 20, 1958.

Autopsy report: "The right lung showed a large tumor occupying almost the entire upper lobe on the right. This tumor involved the right

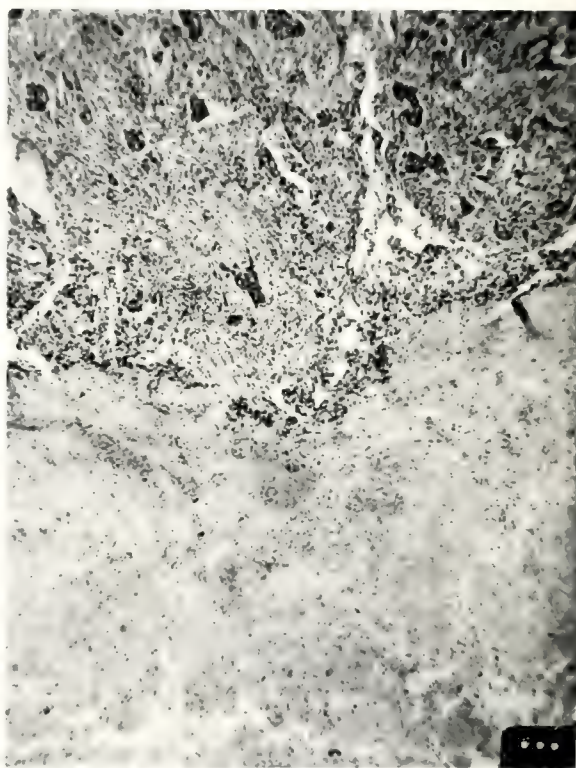


Fig. 2B. Case 1.

main bronchus; ulceration was also seen. Histologic examination of the specimen showed an epidermoid carcinoma, moderately differentiated. However, there were also in the right upper lobe several tubercles with a center of caseation surrounded by fibroblasts and lymphocytes. A few multinucleated giant cells and Langhans cells were seen (fig. 2B).

In this case bronchogenic carcinoma probably developed in the right main stem bronchus, which also involved the tuberculous process.



Fig. 3. Case 2.

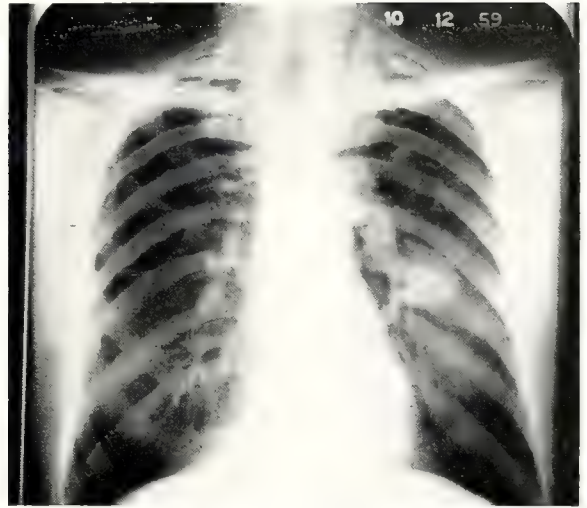


Fig. 4. Case 2.

Case 2

A white, 72 year old man was admitted to Eastern North Carolina Sanatorium in July, 1958, with a diagnosis of pulmonary tuberculosis with positive sputum on direct examination. Admission roentgenograms of the chest showed bilateral densities involving both upper lung fields, with a cavity on the left (fig. 3). He was treated by bed rest and drugs, and on this regimen improved both clinically and radiologically. Routine roentgenograms of the chest taken 14 months later showed almost complete clearing of the densities in both upper lung fields, but there was a new lesion in the left mid-lung field (fig. 4). At operation two segments of the left lower lobe were removed.

Microscopic examination: "The specimen was cut and a tumor mass measuring about 5 cm. in its greatest diameter was revealed. There was also a tubercle measuring 1 cm. in its greatest

diameter, as well as extensive fibrosis with strands of epidermoid carcinoma throughout. Adjacent to this were several old tubercles with necrotic changes. No acid-fast bacilli or fungi were seen.

Case 3

A 68 year old white man was admitted to Eastern North Carolina Sanatorium with pulmonary tuberculosis in December, 1954. On admission the sputum was positive for acid-fast bacilli on direct smear and culture. A chest film made in March, 1955, showed bilateral involvement of both upper parts of the lung, with cavities on the left (fig. 5).

After treatment with streptomycin, INAH and PAS, a chest film made in December, 1956, indicated definite improvement, with some densities in the upper part of both lungs, and he was discharged home (fig. 6). He was doing quite

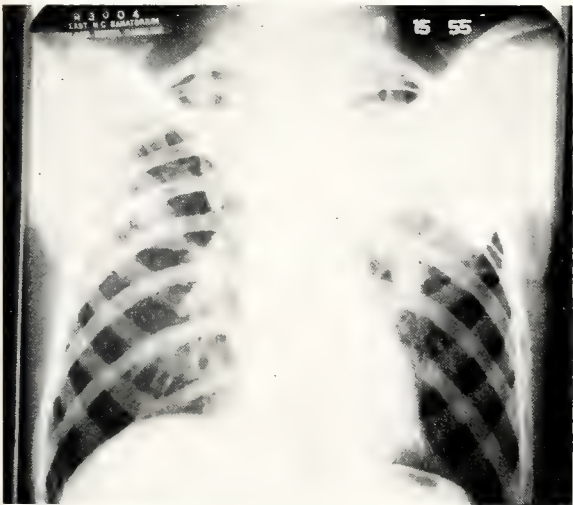


Fig. 5. Case 3.

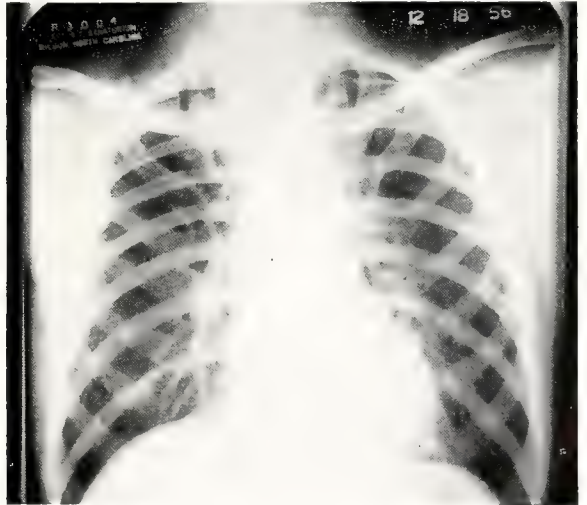


Fig. 6. Case 3.



Fig. 7. Case 3.

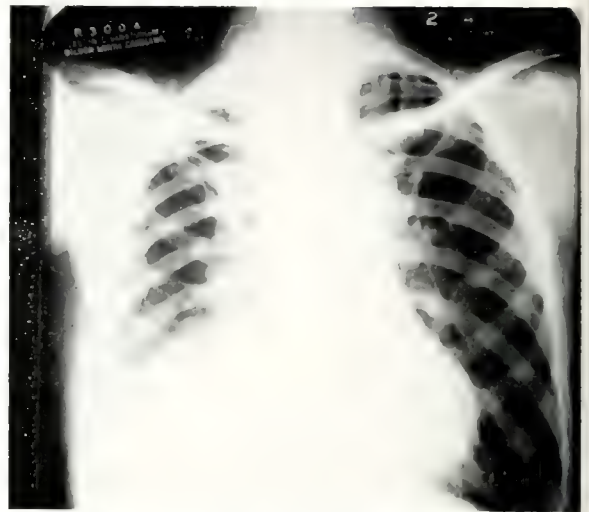


Fig. 8. Case 3.

well until April, 1959, when general weakness, shortness of breath, and rapid weight loss developed. He also had a frank hemoptysis on one occasion. He was readmitted in December, 1958, when a diagnosis of pleural effusion was made (fig. 7). He was treated by repeated aspiration, and roentgenograms done at that time showed almost complete disappearance of pleural effusion, with shadows in the right upper and middle portions of the lung (fig. 8). A bronchoscopic examination was negative. The pleural effusion showed suggestive cells, and histologic examination of a scalene node revealed undifferentiated metastatic carcinoma of the lung.

Discussion

The problem of whether, and to what extent, pulmonary tuberculosis is responsible for the development of carcinoma of the bronchus is still under discussion. Statistics vary, depending on such factors as the method of study, the period of time covered, and the segment of population involved. Drymalski and Sweany, in 1948, found that the incidence of carcinoma in patients with tuberculosis was 0.75 per cent. Westergreen¹² found among 100 patients with carcinoma 34 who had pulmonary tuberculosis; however, only 87 of these cases were confirmed histologically, and 23 had positive sputum.

In the present series there were 104 cases of cancer among 2341 non-tuberculous patients, and 19 among 10,485 cases of tuberculosis. The incidence of coexistence in this series is therefore negligible. The figure

may have been influenced by several factors. First, the patients admitted to the sanatorium came from rural areas and included whites and non-whites. Second, they all had respiratory illnesses and gravitated to the sanatorium. A third factor is the changing picture of tuberculosis. Many young people have been treated successfully by modern drugs and when they reach the cancer age present no evidence of tuberculosis. A fourth possible factor is the improvement in the diagnosis of cancer. And finally, as carcinoma advances, it may destroy tuberculous living tissue and leave no evidence of the latter disease.

Diagnosis of bronchogenic carcinoma

The diagnosis of carcinoma of the bronchus in tuberculous patients may be rather difficult in the early stages, as the two diseases produce almost the same clinical manifestations; however, in the later stages, when metastases occur, it may be easier to prove by routine investigations. Although carcinoma may be suggested by symptoms and signs, the definitive diagnosis is based on the roentgenologic features. Widening of the mediastinal shadow, the appearance of a new shadow or the enlargement of shadows seen earlier, or the appearance of an atelectatic segment should be viewed with suspicion.

Almost all bronchopulmonary diseases occurring in tuberculous patients should be

considered in the differential diagnosis. The common respiratory infections that may be taken into account are bacterial and viral infections and spread of tuberculosis. Apart from clinical and radiologic examinations, laboratory studies are helpful in establishing the diagnosis. If, however, suspicious shadows show no change after three weeks of treatment with antituberculous drugs and antibiotics, other aids such as bronchoscopic and histologic studies are indicated.

Summary

1. Among 12,826 patients admitted to Eastern and Western North Carolina Sanatoria from January 1, 1950 through December 31, 1959, 10,485 had pulmonary tuberculosis. There were 194 cases of carcinoma of the bronchus, 123 proved histologically and the remainder diagnosed on clinical and radiologic evidence. Of the 123 proved cases of carcinoma, 112 involved the bronchus and 11 were metastatic. One hundred four cases were in in-patients who had no tuberculosis, leaving 19 patients who had both diseases. Of the 19 cases of carcinoma of the bronchus associated with pulmonary tuberculosis, 15 were primary and 4 were secondary in origin. Cases of pulmonary tuberculosis were proved by bacteriologic studies, and cases of carcinoma were proved by histologic examinations.

2. The incidence and coexistence of carcinoma of the bronchus in tuberculous patients in this series is negligible, possibly owing to the rural and bi-racial character of the population, to advances in the diagnosis and treatment of pulmonary tuberculosis, as well as to better diagnosis of carcinoma of the bronchus. In this series only cases of carcinoma proved histologically and cases of tuberculosis proved bacteriologically have been included. Carcinoma of the bronchus may develop in old, chronic tuberculous lesions, but no definite relationship between these two diseases was found in this series.

3. No pathognomonic features of carcinoma of the bronchus developing in tuberculous patients were found. However, the appearance of respiratory symptoms and signs in patients whose acid-fast bacilli are seen to be sensitive to antituberculous drugs should arise suspicion. Diagnosis still lies in roentgenography: the appearance of new shadows, increases in the size of lesions, and widening of the mediastinum should suggest malignancy.

4. In the differential diagnosis of carcinoma of the bronchus developing in tuberculous patients, any bronchopulmonary disease should be taken into consideration. If a three week's course of broad spectrum antibiotics produces no change in classification, bronchoscopic and histologic and histologic studies should be carried out.

Acknowledgement

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Compulsive Water-Drinking

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and

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WINSTON-SALEM

The evaluation of polyuria requires consideration of the neurohypophyseal-renal tubular axis and of peripheral factors which condition its responsiveness. Except for diabetes insipidus and compulsive water drinking, the major polyuric syndromes (table 1)¹⁻¹⁰ are readily distinguished by

Table 1

Major Polyuric Syndromes

Compulsive Water Drinking ¹
Diabetes Insipidus
Disease affecting the kidney primarily
Congenital nephrogenic diabetes insipidus ²
Chronic renal disease ³
Obstructive uropathy ⁴
Unilateral renal disease ⁵
Fanconi Syndrome ⁶
Polyarteritis nodosa ⁷
Conditions affecting the kidney secondarily
Postassium deficiency ⁸
Hyperparathyroidism ⁹
Other hypercalcaemic states ¹⁰
Diabetes mellitus

available clinical and laboratory means. Differentiation between diabetes insipidus and compulsive water-drinking is more difficult and has often been made by exclusion.

In a recent review Barlow and deWardener¹ clarified the problem of compulsive water-drinking[‡] and proposed clinically applicable criteria for its differentiation from diabetes insipidus. They reviewed 10 previously reported cases and added observations on 9 of their own. They found the plasma osmolality to be significantly lower than normal in most patients with obsessive

polydipsia and significantly higher than normal in individuals with diabetes insipidus; the ability to concentrate urine after intravenous vasopressin was impaired in some of their patients. The psychologic aspects of the condition were also discussed. It was postulated that it abates naturally with senescence, none of their patients, the patient (case 2) of Little and others¹¹, nor the 2 reported by LeTellier¹² being over 60 years of age.

We have recently studied a 64 year old male with compulsive water-drinking of 48 years' duration, in whom the diagnosis was established by a modification of the techniques of Barlow and deWardener.

Case Report

First admission

A 64 year old white man was first admitted to the North Carolina Baptist Hospital on March 25, 1960, for prostatism, symptomatically manifest for three months. In his past history brief reference was made to the presence of diabetes insipidus since adolescence, to intermittent episodes of arthritis for 25 years, and to occasional attacks of epigastric burning relieved by food and water. The specific gravity of the urine ranged between 1.001 and 1.008, the pH was 8, and coliform and paracolon organisms were grown on culture. The serum sodium was 135 mEq. and the serum potassium 3.9 mEq. per liter. The daily intake of fluid varied between 2580 and 6750 ml., and the urinary output from 5900 to 8200 ml. No

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‡"Compulsive water-drinking" is not an apt term, because water-drinking is compulsory in diabetes insipidus if dehydration and vascular collapse are to be avoided. Other terms that have been suggested are psychogenic polydipsia, obsessive polydipsia, functional polyuria, functional isostenuria, and compulsive polydipsia. Hydrophilia (water-loving) apparently has not been suggested, nor has habit polydipsia, which our patient certainly has.

further evaluation of the polyuria was made. After an uneventful transurethral resection for prostatic hyperplasia, he was discharged.

Second admission

The patient was readmitted May 31, 1960, because of persistent nocturia and polyuria. Further history disclosed the gradual onset of polydipsia and polyuria when he was 15 or 16 years of age. Febrile illnesses were denied, as was serious craniocerebral trauma. His local physician made a diagnosis of diabetes insipidus. No therapy was suggested and the patient maintained his daily fluid intake at "four or five gallons" thereafter. Despite his symptoms, he was able to serve in the Armed Forces and to work as a postman until arthritis necessitated his retirement.

He had his first attack of inflammatory arthritis in 1933; recovery was complete except for a residual backache. In 1942, because of a recurrence of arthritis, he was hospitalized at Mountain Home (Tennessee) Veterans' Administration Hospital. At that time his blood pressure was 150/100. His daily fluid intake was between 4 and 5 liters, and the maximum urinary specific gravity 1.0101; phenolsulfonphthalein excretion was 33 per cent in two hours. Roentgenograms of the spine demonstrated hypertrophic changes.

He was fasted for 17 hours on one occasion during this admission, presumably to evaluate his capacity to concentrate his urine. He apparently tolerated the test poorly, becoming "very dehydrated"; despite this reaction, he was not excessively thirsty at the end of the test, and the urinary specific gravity reached 1.014. He was later given an injection which produced dizziness, nausea, vomiting and a decrease in urinary output. No further studies or treatment were initiated, and polyuria and polydipsia, with a preference of tap water or a mixture of tap water and hot water, persisted.

He was admitted to the Roanoke (Virginia) Veterans Administration Hospital in 1953, again for treatment of arthritis. His blood pressure was 150/100; phenolsulfonphthalein excretion was 22 per cent in 15 minutes and 77.5 per cent in two hours. The

non-protein nitrogen was 35 mg. per 100 ml. During a period of fluid restriction for a urine concentration test the patient was not uncomfortable, but an injection of vasopressin was followed by pallor, nausea and diarrhea, as well as a diminution in urine flow. On discharge he was told to take posterior pituitary snuff, which he discontinued after a short trial because it made him "groggy."

He was re-admitted to the Roanoke Veterans Administration Hospital on December 30, 1959, with prostatism, but left before studies were completed. The blood urea nitrogen was 12 mg. and the phosphorus 3.6 mg. per 100 ml. The specific gravity of the urine was 1.002.

Psychologic factors: The emotional climate in which the patient was reared is difficult to assess because he tended to block probing questions by replies, couched in nonspecific terms, drawn from his medical past. A passive-aggressive attitude was apparent during diagnostic procedures, particularly those with which he was unfamiliar. He did admit "nervousness" since childhood, attributing it to inadequate parental affection because of a large family: he was the fourth of nine children. Nevertheless he formed a significant relationship with his mother, providing her financial support when she and his father separated. He pictured his father as a stern, strict, rather forbidding person who gained pleasure from frightening him.

On *physical examination* a well localized grade 2 apical systolic murmur was heard. The blood pressure was 170/80 mm. Hg. and the pulse rate 68 per minute. No joint abnormalities were observed. No residual urine was obtained on catheterization.

The maximum specific gravity of random samples of urine was 1.005. The blood urea nitrogen was 12 mg. per 100 ml. The serum sodium was 141 mEq., the carbon dioxide combining power 26 mEq., and chloride 96 mEq. per liter. The serum calcium was 9.4 mg. per 100 ml. Paracolon and coliform organisms were again cultured from the urine. Cardiac enlargement was demonstrated by roentgenography of the chest. No abnormalities of the sella turcica and no carotid

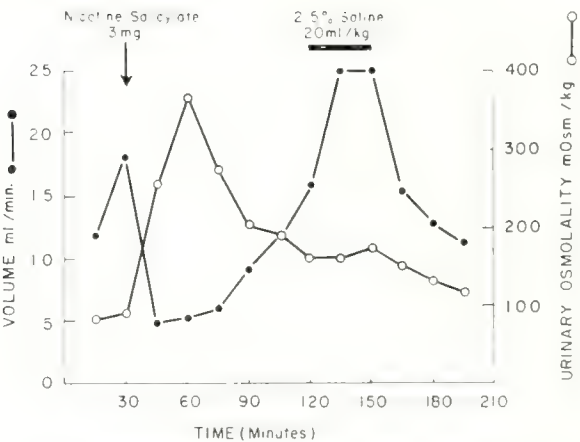


Fig. Response of urine flow and osmolality to intravenous administration of nicotine salicylate and hypertonic saline solution.

calcification were detected on roentgen examination of the skull.

Hospital course: Before evaluation of the neurohypophyseal-renal tubular complex the patient was permitted fluids *ad libitum*; his intake approximated 5 liters daily, with comparable excretory volumes. On the fourth hospital day, with a urethral catheter indwelling, he was given an oral water load of 20 ml. per kilogram of body weight over a 30-minute period. After a satisfactory urinary flow was established, nicotine salicylate, 3 mg., was administered intravenously. This provoked nausea as well as prompt antidiuretic action and an increase

in urine osmolality (fig. 1 and table 2). When urine flow returned to the prenicotine level, an intravenous infusion of 2.5 per cent saline (10 ml./kg. of body weight) was given within 30 minutes. Both urine flow and osmolality decreased.

That night food and fluid were withheld for 10 hours. Whereas morning urine had been hypo-osmolal (82 mOsm./kg.) to plasma when fluids were unrestricted, it was concentrated to 311 mOsm./kg. after dehydration. The plasma osmolality at that time was 281 mOsm/kg. The patient reported no discomfort during dehydration. Further studies could not be performed because of his insistence on leaving the hospital.

Discussion

This case illustrates the clinical diagnostic dilemma of differentiating the polyuric syndromes. The exclusion of intrinsic renal disease and of diseases affecting the kidneys secondarily still leaves the problems of distinguishing idiopathic diabetes insipidus from compulsive water-drinking.

The patient's history is of help in this differentiation, but the diagnosis is confirmed by laboratory means (table 3). The hypertonic saline infusion (Hickey-Hare) test¹³, modified¹⁴ or unmodified, has been advocated on the assumption that such a solute load will provoke elaboration of antidiuretic

Table 2
The Effect of Nicotine and Hypertonic Saline Infusion on Urinary Flow and Osmolality

Period*	(ml./min.)	(mOsm/kg.)	(mOsm/kg.)	(mEq/l)
	Flow	Osmolality Urine	Osmolality Plasma	Sodium Serum
1	11.7	82	270	141
2	18.0	89	264	138.6
3†	4.8	255	260	136.4
4	5.1	365		
5	5.9	270		
6	9.0	203		
7	11.7	190		
8	15.7	160		
9	25.0	160		
10	25.0	172		
11	15.3	151		
12	12.7	132	272	142.4
13	11.3	117		

Each period fifteen minutes
†Nicotine salicylate, 3 mg., injected intravenously at the beginning of this period.
‡Period of hypertonic saline infusion.

Table 3
Differentiation of Diabetes Insipidus and Compulsive Water-Drinking

Factors	Diabetes Insipidus	Compulsive Water Drinking
Onset	Usually abrupt	Usually gradual
Response to placebo	Does not respond	Usually responds
Response to vasopressin	Antidiuresis	May or may not have anti-diuresis May have water intoxication
Significant psychological factors	Usually absent	Usually present
Fluid intake	Rather constant	Usually varies
Preference for cold water	Usually present	Usually absent

hormone (ADH) by activating osmoreceptors.¹⁵ Decreased urinary flow and increased solute concentration should ensue. It has been demonstrated, however, that prolonged polydipsia depresses renal tubular responsiveness to vasopressin¹⁶; this response thus becomes dependent upon the level of end organ function, and the results of hypertonic saline loading may not precisely delineate the basic defect. The response to intravenously administered vasopressin in many patients with compulsive water-drinking can be affected favorably by fluid restriction or psychotherapy¹. Fluid restriction should be deferred, however, until ADH production can be assessed, because of the danger of inducing vascular collapse if diabetes insipidus is present.

These difficulties have led to the use of nicotine salts to provoke the discharge of ADH¹⁷. Using standard procedures, several groups¹⁸ have demonstrated varying levels of activity and have suggested that rarely is the neurohypophysis totally inactive. It has been pointed out that an adequate dose of nicotine will provoke a near-maximal antidiuresis in a sensitive non-smoker^{18c}. The nicotine effect is confirmed by nausea, vomiting or diarrhea, thus permitting separation of peripheral and antidiuretic effects.

Our patient responded to nicotine with a maximal urine osmolality of 365 mOsm./kg.; for a brief time his urine was hyperosmolar to plasma. His response to hypertonic saline loading, however, was abnormal in that urine osmolality decreased. A similar re-

sponse was observed by Kleeman, whose patient^{16b} was asymptomatic and produced hyperosmolar urine when dehydrated.

If the mechanism for water reabsorption is, in effect, saturated either for years or for a few days by excessive ingestion of water, the efficiency of reabsorption is impaired, as indicated by a diminished response to exogenous vasopressin or to nicotine salts (table 3). Hypertonic saline infusion then fails to provoke an increase in solute excretion concomitant with a decrease in urinary flow. This suggests that prolonged lowering of serum osmolality limits solute excretion, economically an appropriate response. If an increase in solute excretion or a decrease in urine flow were provoked by antidiuretic agents in an habitual water-drinker, water intoxication should ultimately develop¹⁹. This probably occurred when our patient was given posterior pituitary snuff for diabetes insipidus. With fluid restriction, the need for conservation is restored and the concentrating mechanism becomes unsaturated.

Summary and Conclusion

Compulsive water-drinking leads to a lowering of the serum osmolality, often associated with a decrease in responsiveness to endogenous or exogenous antidiuretic hormone. In contrast, serum osmolality is increased in untreated diabetes insipidus, and tubular responsiveness to vasopressin is retained. Because the results of hypertonic saline infusion are inconsistent, it is suggested that nicotine salts be used to evaluate

the neurohypophyseal-renal tubular complex before dehydration is instituted or intravenous vasopressin administered.

If the patient is cooperative, restriction of fluid intake is the treatment of preference, although compulsive water-drinking does not appear to produce permanent disability.

Addendum

Since this paper was prepared, three more instances of compulsive water drinking have been studied by means similar to those employed in our case²⁰. These patients are all females between the ages of 16 and 32 years. In a fourth case a 40 year old woman developed psychogenic polydipsia following the administration of Prednisone; a cure was effected by inducing water intoxication by the prolonged administration of vasopressin²¹.

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Medicine has, for better or worse, come into the purview of the politicians, and when or if it will emerge from their consideration we do not know. If medicine must be considered politically, it is better that this should be done by establishing needs, and the means of filling them, rather than leaping on a band-wagon designed for vote-catching and tastefully emblazoned "The Right to Health." Health may be too serious a matter to be left to the doctors; it is also too vital to played with by the politicians.—Emson, H. E.: Basic Issues in Hospital and Medical Care Insurance, *Canad. M.A.J.* 85: 800 (Sept. 30) 1961.

A Century Later - A Book Review

"Clinical notes on Uterine Surgery, with special reference to the management of The Sterile conditions" by J. Marion Sims, A.B., M.D., New York: William Wood and Company, 1867.

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RALEIGH

Several years ago I came into possession of a copy of the first American edition of "Clinical Notes on Uterine Surgery, with Special Reference to the Management of the Sterile Condition," by J. Marion Sims. These "clinical notes," as Dr. Sims called them, first appeared in serial form in *the Lancet* (London) during 1864 and 1865, and were first published in book form by Hardwicke of London in 1866. The American edition was published by William Wood and Company, New York, in 1867. Although many reviews of this book have been written, I have attempted to write yet another, almost a century after the first articles appeared in *The Lancet*.

Background

Any book is better understood if we have some knowledge of the background against which it is written. For this reason I would like to "set the stage" for you.

Much had happened to Dr. Sims since he left Lancaster, South Carolina, as a discouraged young practitioner who had lost two of his first patients, under what seemed to him to be tragic circumstances, and journeyed to Alabama. He had established himself in Mountain Meigs and later in Montgomery and, after many futile efforts, had effected the cure of vesicovaginal fistula by the use of silver wire sutures. This operation started him on the road to fame and became his card of entry to the professional brotherhood anywhere that he cared to practice.

Seeking relief from a chronic dysentery he removed himself and his family to New York. He was so successful in New York that he was able to found the now famous Woman's Hospital, in 1855, and had been

its chief surgeon for nine years at the time of the first writing of his articles. In order to resolve his dilemma of divided North-South loyalties during the War Between the States, he had moved himself and his family to Europe in 1862, and was a resident alternately of London and Paris. His recognition in Europe was even more enthusiastic than it had been in his own country. It might be said that here he reached the peak of his success, both professionally and socially. The only shadow was the death from yellow fever of his favorite son while on his way back to the States to fight in the cause of the South.

To the best of my knowledge Dr. Sims never had a formal teaching connection with any medical school, but his writings and the overflow attendance in his operating clinics, together with an occasional appearance as guest lecturer, gave him the reputation of one of the greatest teachers of his day.

Sims had few of our modern scientific conveniences. Anesthesia (ether, chloroform and nitrous oxide) had been in use for sometime, but was not nearly as well understood nor as safe as it now is. Lord Lister, a good friend and admirer of Sims, had not yet published his work on antiseptic surgery (1867). Abdominal operations had been performed for ovariectomy (McDowell, 1809) and Eugene Koeberle, 1863), but the post-operative morbidity and mortality were such as to make laparotomy an operation of last resort. The science of histopathology was in its early infancy. The early work of Muller and his pupils, Schwann and Virchow, had been published but was not widely known.

Sims was so busy that he made no efforts to rewrite his "Clinical Notes," but collected them in book form, adding only a dedication,

Read before the Royster Medical Club, Raleigh, North Carolina, January 17, 1962.

preface, and introduction. He always intended that this book should be the forerunner of a complete text on gynecology, a task which he never accomplished. With these facts in mind, let us proceed to examine the one book other than his unfinished autobiography that he did write.

Diagnosis and Treatment of Sterility

The theme of infertility runs throughout the book and almost all of the subjects treated therein are introduced and discussed in regard to their relationship to the ability, or inability, to conceive. It might be said that he built his entire work around the diagnosis and the treatment of the "Sterile Condition." He wrote:

"I do not propose to write a complete monograph on uterine surgery, or on the treatment of sterility, but simply to interweave the two while taking a glance at such surgical difficulties as seem ordinarily to interfere with conception."

It must be remembered that Sims knew nothing about the hormonal components of ovulation, menstruation, conception, the nidation of the ovum, or the protection of the pregnancy within the uterus. To him the process was purely mechanical, and the cure of infertility lay in removing the mechanical hindrance to fertilization of the ovum and, afterwards, to its proper growth. Viewed in this light, his reasoning and his contributions to the study and treatment of infertility can only be regarded as phenomenal.

In his introduction to the subject Dr. Sims postulates eight "conditions essential to conception," and each of the eight sections of the book is based on the discussion of one of these essential conditions.

The main portion of the introduction is concerned with proper methods of examining the patient, including the instruments used. He described in great detail the bimanual examination (first used and described by Sir James Y. Simpson) and the conditions to be especially noted during the examination. He stresses gentleness, cleanliness, proper lubrication (with "suet"), and the dorsal decubitus position. For the visual examination of the vagina and the cervix he used the knee-chest position (taught to

him by Dr. Thomas G. Prioleau of Charleston, South Carolina) and the left lateral semi-prone, or *Sims position*. He describes his speculum (which is widely used even in our day) and details the method of its use. He describes an "invalid chair" invented by Mr. James Holmes of Charleston, South Carolina, that anyone can see is the ancestor of our present day examining table. This introduction, like the remainder of the book, is clearly illustrated by beautiful engravings.

SECTION I

"Conception occurs only during menstrual life."

In this short section Sims proves his point by citing cases of precocious menstruation with youthful pregnancies, pseudocystitis in cases of amenorrhea, and pregnancy in cases of delayed menopause. He did not realize that menstruation is dependent on preceding ovulation, and to this extent his reasoning was wrong. He believed that ovulation and menstruation occurred simultaneously. This error in timing may help to explain his failure to obtain more than one pregnancy with all his many attempts at artificial insemination. He also describes several cases of pregnancy misdiagnosed as uterine or abdominal tumors, an error which occurs all too often today.

SECTION II

"Menstruation should be such as to show a healthy condition of the uterine cavity."

Here Sims defines normal menstruation and states erroneously that "menstruation is a sign of ovulation, the one taking place when the other begins, and ceasing when it stops." He discusses various causes of menorrhagia, including "granular erosion" of the cervix, "fibrous engorgement" of the cervix, "fungoid granulations" ("proud flesh"), polyps (including pedunculated fibroids), fibrous tumors, and inversion of the uterus.

He describes an ingenious method of painless (but odoriferous) dilatation of the cervix with the "sponge tent." This is a cone made of dried and compressed sponge which expands on contact with moisture. It is in-

serted in the cervix in the compressed state, becomes moistened by cervical secretions and discharges, expands; and gradually dilates the cervix. The cones are used serially, in graduated sizes, until dilatation is complete enough to allow examination of the uterine cavity with the index finger. The author gives careful instructions on the manufacture of this article and on its painless insertion and removal. He says, "I am thus cautious, because I have seen metritis follow its injudicious use." He further expands:

"Having often recommended the use of sponge tents, I shall necessarily be compelled to speak frequently of them in these pages, and I only regret that they are so disagreeable as remedies. I never use them if I can possibly avoid it, and I never apply them without apologizing to my patient for the very unpleasant effects they produce."

Small wonder! Sims credited the sponge tent with cures that are difficult for us to accept, saying "It destroys not only fungoid granulations, but even large mucous polypi; and in one instance I saw a sponge tent destroy wholly a fibrous polypus as large as a pigeon's egg."

He also exposed the cervical canal by bilateral transverse incisions up to the level of the internal os, allowing them to heal without resuturing them. He describes the "sponge probang," which finds its modern counterpart in our sponge stick. Hemorrhage was controlled with styptics and pressure with tampons instead of suturing.

It is in this section that Sims describes the "écraseur," an instrument consisting of a constricting chain (with links very much like a miniature bicycle chain) to loop around the part to be removed. Amputation is effected by gradual constriction, the same principle as that employed by the tonsil snare used today. This instrument was used for removing polyps, for hemorrhoidectomy, intrauterine myomectomy, amputation of the cervix, and even for the vaginal removal of inverted uteri. Again I quote Sims:

"This is a great advance in surgery; and no man of 20 or 30 years' experience can look back on the days of ergot and Gooch's canula, and contrast them with the present time of sponge tents and the écraseur without a thrill of delight at the progress of our noble calling."

He also discussed the many ways of treating fibroids, both medical (unsuccessful) and surgical. Some fibroids were gradually removed by incising the capsule through an intrauterine approach and allowing the uterine contractions to force the tumor out through the cervix, where it could be removed partially or totally by the écraseur. (All four of Sims' patients died either from hemorrhage or infection).

He discusses the treatment of inversion of the uterus and describes the manual correction of this condition. He details a case in which removal of the inverted uterus with the écraseur resulted in profuse hemorrhage from the uterine vessels, controlled by ligature and suture closure of the cervical remnant. His comment is sufficient: "I would hesitate a long time before removing another inverted uterus." He then suggests that the best solution would be to cut through the internal os to facilitate the manual replacement of the uterus in its original position, a principle which we use today in the Spinelli operation.

Sims then goes on to discuss dysmenorrhea, which he believed to be "almost wholly due to mechanical causes"—that is, some form of obstruction to the menstrual flow. He lists these as cervical contracture, flexion, congestion, and obstructive growths such as polyps and fibroids. Often he found combinations of two or more of these conditions. We now differentiate dysmenorrhea associated with endometriosis, pelvic congestion, and emotional and situational factors. Some progress has been made in this area, but in general we will have to say that our treatment of this symptom complex remains less than satisfactory.

Sims decried the use of the bougie because of the frequency of "metritis," and after some experience with our present-day stem pessary, I heartily agree. Here again he advocates splitting the cervix up to the internal os, saying that he had found dilatation with the sponge tent anything but satisfactory. He warns against "operation in the consultation room" because of the danger of hemorrhage, immediate or delayed. He recognized that the integrity of the internal os was important to the protection

of pregnancy, even as we do today in our use of the Shirodkar procedure.

SECTION III

"The os and cervix uteri should be sufficiently open, not only to permit the free exit of the menstrual flow, but also to admit the ingress of the spermatazoa."

In this section Sims attacks the problem of infertility directly, rather than as a complication of some other condition. His methods remain the same, although his objective differs. He describes numerous cases in which the relief of cervical obstruction resulted in pregnancy. He says: "The physical causes that obstruct the egress of the catamenia, likewise obstruct the easy ingress of the spermatazoa." And, in reply to those who said, "If she would only have a child it would cure her," he answered, "If we could only cure her she would have a child."

SECTION IV

"The cervix uteri should be of proper size, form and density."

In this section Sims discusses the relative shapes and sizes of the cervix, along with projection or lack of projection of the cervix into the vagina. He decries the treatment of elongated, indurated cervixes with chemical cauterants, and suggests amputation (with scissors, not the *écraseur*) as the method of choice. He disliked the cauterants because of the tendency to result in stenosis of the external os. But he makes this revealing statement: "I have not as yet had many cases of pregnancy to follow amputation of the cervix . . ." He describes his uterine guillotine, which is a combination of the *écraseur* with an amputating blade, adding, "There is always some contraction of the os extermun after all amputations of the cervix."

To me one of the most interesting statements in this section is:

"I have operated more than fifty times, thirty-six by this method, and lost one patient. This case occurred unfortunately just at a time when the hospital atmosphere suddenly became unfavorable to all surgical operations, and we had serious accidents to follow the slightest operation, before we were aware that we were breathing a poisoned air."

Does that revelation evoke a sympathetic understanding from our present day operating room committees?

SECTION V

"The uterus should be in a normal position—i.e., neither antverted nor retroverted to any great degree."

Sims obviously attributed more importance to uterine malpositions as a contributing factor in infertility than we do today. He defines and classified them with long explanations of how they are produced. Our disagreement with him concerns the degree of importance that should be attached to these malpositions.

He describes a lesion of the posterior surface of the cervix which is quite often associated with sterility and dysmenorrhea.

"Dr. Emmett and myself called it the cock's-comb excrescence. We called it this merely to give it a name. The name was suggested by the form of the growth, by its mobility, by its gristly feel, and by the manner of its attachment. This affection is not described in the books, but I have no doubt that others will find it . . .; and the professional mind once directed toward it, I have as little doubt that someone will be able sometime or other, to give us its pathological appearances from post-obit examinations."

Fifty-five years later (1921) Sampson published his classical description of endometriosis. How well Sims's description fits the endometrial implants found in the cul-de-sac of Douglas!

In this section Sims again extols the bimanual method of pelvic examination, which was new and not widely used at the time. He also discusses the uses and abuses of the malleable uterine sound. He talks of the dangers of perforation of the fundus. And what gynecologist has not experienced that sickening feeling that comes when the sound disappears for at least half its length inside the space above the cervix!

Sims expends much verbiage on methods of correcting uterine malpositions. As in almost every situation, he invented a new instrument for the procedure—a jointed uterine sound which he called a "uterine elevator." In Sims's day there was much disagreement about the importance of uterine

displacements. He says, "some look upon it as a matter of no great importance, while others are ready to attribute to it every nervous symptom that the patient may suffer." This statement would be very appropriate today.

Sims devotes many pages to the selection of appropriate pessaries and their application both for the treatment of infertility and the prevention of habitual abortion. He cites numerous cases to prove his points. He does state, however, that selection of the cases is an important factor in his success, and that pessaries are not universally applicable in cases of retroversion.

In this section on uterine displacements, the author also discusses procidentia, giving ideas about its etiology and mechanism of production which make reasonably good sense even today with our more accurate knowledge of the pelvic supports. At that time, according to Sims, most cases of procidentia were treated (largely unsuccessfully) by a snug perineorrhaphy. He says that "the great Marshall Hall" suggested an operation to narrow the upper portion of the vagina and that this operation had been employed successfully, at least once, by a Mr. Heming in 1831. Sims seized on the idea and, in his first case, planned to remove a large oval section of the anterior wall and create a huge vesicovaginal fistula, which he would repair immediately. (He must have grown pretty cocky about his repairs by this time!) Let him describe his experience in his own words:

"Proposing to excise the anterior wall of the vagina, I hooked it up with a tenaculum, pulled it well towards the posterior wall, and then grasped the base of the mass thus elevated with a pair of curved forceps made for the purpose, on the principle of Ricord's phimosis forceps, which held the parts firmly embraced, while with scissors cutting under the forceps I removed, at once, a very large portion of the anterior wall of the vagina . . . The chasm made by this operation was fearful; the lateral retraction of the divided edges being so great as to present, at a superficial glance, some difficulty in bringing them together by sutures. There was, however, no trouble whatever . . . My surprise was equalled only by my delight, when I found that I had not succeeded in doing what I had intended; for instead of excising the base of the bladder with the anterior wall of

the vagina, I had, by the tenaculum, simply raised the hypertrophied vaginal tissue up between the blades of the forceps, luckily separating it from the lining membrane of the bladder, which remained intact. Thus by a mere accident, the operation was really far better than if I had succeeded in accomplishing what theoretically I proposed to do . . . The lateral edges were brought together with seven or eight silver sutures passed transversely . . . She was soon well, and is so to this day. The operation was done nine years ago. The good result in this case led me to operate on others afterwards, by a simple denudation of the vaginal epithelium . . ."

Later Sims modified this operation by denuding a V shaped area of the anterior vaginal wall, with the open end of the V towards the cervix, and suturing the two arms of the V together with silver wire. The result was a marsupial type of pouch in the anterior vaginal wall, into which the cervix occasionally slipped, creating a painful retroversion. This led to a further modification. He "made the V trowel-shaped by turning its upper ends inward across the vagina." So I believe that we can say, with some justification, that Sims was the first to perform anterior colporrhaphy with reasonably successful results in a series of cases.

SECTION VI

"The vagina must be capable of receiving and of retaining the spermatic fluid."

In this section Sims discusses imperforate hymen, vaginismus (a word which he himself coined), and vaginal atresia (congenital, post-traumatic and post-infectious). His description of a patient with vaginismus is classic, and should be read to be appreciated. He details the operative correction of each condition and introduces the use of the glass prosthesis in vaginismus and atresia. His description of the couple who called on the family physician for anesthesia services two or three nights weekly for several years in order to have marital relations would be ludicrous, if the subject were not so serious. The wife must have been "etherized" at least two hundred times in the course of two years. Love will certainly find a way!

Here also he discusses the inability of some vaginas to retain semen and theorizes that a sort of slingshot action of the post-

erior fornix throws the semen out of the vagina at the completion of coition. My investigation has not carried me to the point of corroborating or disproving his ideas on this subject!

SECTION VII

"For conception, semen should be deposited in the vagina at the proper time."

Here Sims discourses on the role of the male in infertility. He lists the infections of the testes (gonorrhea or mumps orchitis) and gonorrheal strictures as acquired causes. Quite rightly he absolves frigidity and lack of virility of all blame for infertility, except in the relative sense that infrequency of copulation might be a factor.

He describes his experiments in artificial insemination, and while he was not the first to perform such experiments, he was the first, to my knowledge, to produce a pregnancy by this method other than John Hunter (prior to 1780). He reports his studies on the survival of spermatozoa in the vagina and cervix, about 50 years before Max Huhner, in his book on sterility in the male and female, described postcoital examinations by what later came to be known as the Huhner's test. Sim's method was identical with that of Huhner. Very little, if any, improvement has been made in his syringe for the introduction of semen into the uterine cavity. He states: "If we understood more about the proper period of conception, this mechanical period of fertilization might become exact enough to depend upon it in such cases as would be otherwise impracticable." He quotes the Bible in regard to the "period of fitness for conception." "But if she should be cleansed of her issue, then she shall number to herself seven days, and after that she shall be *clean*." (Lev. 15:28). (The average duration of menstruation being from five to seven days, by adding another seven days we arrive at an optimal time of coitus at 12 to 14 days after the onset. This corresponds quite accurately with our proven time of ovulation in a 28-day cycle. Sims apparently counted his seven days from the onset of menstruation and arrived at an earlier optimum time of conception).

SECTION VIII

"The secretions of the cervix and vagina should not poison or kill the spermatozoa."

Here the author states that acid vaginal secretions kill spermatozoa, and suggested the use of "slightly alkaline washes before sexual congress." He advises treatment of vaginitis, cervicitis, and leucorrhea to provide a more favorable medium for the survival of spermatozoa in the vagina and cervix. He states that the spermatozoa will survive much longer in the cervix than in the vagina, a fact that has many times been corroborated.

Conclusion

In review we go back to Sim's original opening statement: "I do not propose to write a complete monograph on uterine surgery, or on the treatment of sterility, but simply to interweave the two, while taking a glance at such surgical conditions as seem ordinarily to interfere with conception."

This, in his engaging, rambling style, he has done. His frequent use of illustrative cases give the book an almost narrative style. His likewise frequent mention of other doctors, often giving their initials and addresses (Sims was an inveterate "name-dropper"), takes us into intimate contact with distinguished company of a century ago. He originated many instruments (quite often for one specific case) and procedures, but his main contribution was his ability to put to use the combinations of previously accepted ideas and previously devised instruments to achieve more consistent results than had previously been obtained. In his investigations and reasoning Sims was well ahead of his time. Not without just cause has he been called the father of modern gynecology.

Credits: Since this is a book review, I am not appending a bibliography. All background material was obtained from two sources:

1. Speert, H.: *Obstetric and Gynecologic Milestones*, New York, The McMillan Company, 1958.
2. Harris, S.: *Woman's Surgeon; The Life Story of J. Marion Sims*, New York, The McMillan Company, 1950.

On Preventive Medicine

*Food for Thought for the
General Practitioner*

A. J. HOLTON, M.D. MPH.

WILKESBORO

To promote health, think in terms of how best to teach patients the means of maintaining resistance against disease—degenerative as well as infectious. Don't allow your patients to get in the habit of taking pills that tend to disguise Nature's warning symptoms (headache tablets, for example), or interfere with Nature's curative reactions (fever tablets).

Teach patients to use medical services for periodic appraisal and advice as to just how better health can be maintained. Such service is cheaper financially as well as physically, and allows the doctor to cover more territory with more benefit and less tension (not to mention fewer unpaid bills).

Concentrate on preventing the abundance of complicated diseases requiring long hospitalization, excessive (and expensive) laboratory examinations, and so forth, which have sky-rocketed the cost of medical care.

Remind your patients that man lives only so long as his heart beats; that periodic appraisal of the "pump system" and learning how to keep it in shape is vital. Relaxing, outdoor exercise, in the sunshine, is an important factor. It helps control tension (worry) as well as high blood pressure, the exercise helping to combat over-weight, one of the earliest signs of impending deterioration of blood vessels.

What to eat and what *not* to eat is fundamental. Milk, eggs, and lean meat are the foundation stones of good nutrition and good health, providing building as well as replacement material.

The most economical source of extra energy is the relatively unprocessed raw fruits and vegetables. These foods also constitute the perfect toothbrush. They not only brush, they massage gums; and the digestive tract

tends to absorb from them only what the body needs. In contrast to the "high octane" characteristics of sugar and excessively processed grain, they are less likely to burn up the patient's T model motor or clog it with carbon (bay windows).

Furthermore, most infectious agents tend to thrive on excessively processed carbohydrates—which are also suspected of lowering resistance to infection and increasing susceptibility to diabetes as well as tooth decay. And don't forget: Absorption of neurotoxins, so common in and around decayed teeth and infected gums, is one of the deadliest afflictions of modern man. Incidentally, is it possible that so-called cancer is only a type of abnormal defense against irritation brought on by "crazy" modern eating habits?

The essentials of good health, therefore, are proper food and exercise. Generally speaking, nature takes care of proper rest—physical rest, that is. As regards mental food, rest, and exercise; for food, cultivate sensible ideas; for rest, diversification of interests (Don't "over-expose" a photographic film type section of gray matter!); for exercise, keep your eyes open. Live in the present: Yesterday is gone, and tomorrow never arrives. Such an attitude helps to control or prevent worry.

For those who tend to worry about heaven, did you ever give serious thought to the practicality of recognizing it as "that which is within and around"? Or as the record of good work which you leave behind?

The Great Physician is credited with teaching us the *divine rule* that exemplifies *natural law*: "Do unto others as you would have them do unto you."

Report from The Duke University Poison Control Center

JAY M. ARENA, M.D., *Director*

ATARACTICS OR TRANQUILIZING DRUGS

Great quantities of drugs of this type are currently being prescribed, and new ones are constantly being put on the market. Consequently, it has been inevitable that their presence in the household should be attended by numerous reports of accidental and purposeful ingestion of overdoses. Generally, the drugs are safe central depressants compared to the barbiturates, and severe poisoning has been rare, especially with Rauwolfia alkaloids and meprobamate. In the case of the phenothiazine derivatives, including promazine and chlorpromazine, however, ingestion by children has produced severe illness and, in a few cases, fatal results.

The most common effect of high overdose with these drugs is deep sleep or coma. With the phenothiazine derivatives, the initial sedation may sometimes be followed by restlessness and, occasionally, by tonic and clonic convulsions. Other manifestations are cataleptoid states, parkinsonian-like symptoms, and a variety of dystonic disorders. The "neck-face syndrome," a dystonia involving the musculature of the face and neck is a particularly frequent and distressing occurrence. The latter drugs (promazine, chlorpromazine, prochlorperazine, and so forth) may also produce deep respiratory distress and a precipitous drop in blood pressure. These effects and the reflex tachycardia accompanying it are the results of the "adrenolytic" action of the drugs.

Respiratory depression is marked if barbiturates and opiates have also been ingested, as their action is potentiated by phenothiazine tranquilizers. Simultaneous ingestion of alcohol predisposes to the development of coma and hypotension. Menstrual

irregularities have been reported after the use of some of these drugs.

A ferric chloride test may be useful for detecting prochlorperazine toxicity and for assuring that instructions to take the drug are being heeded. The addition of 1 ml. of a solution containing 10 per cent ferric chloride and 1 per cent hydrochloric acid to 3 ml. of urine results in an opaque purplish-black color, if a metabolite of prochlorperazine is present in sufficient quantity. The color change occurred in urine samples of patients given as little as 12 mg. of prochlorperazine per square meter of body surface area daily for four days.

Gastric lavage should be done at once, since frequently not only are large doses involved, but also combination of drugs have been taken. If deep sleep without severe respiratory or circulatory depression is the only effect of overdosage, treatment other than parenteral fluids is probably not necessary.

Caffeine and methyl-phenidylacetate (Ritalin) are preferred to amphetamine derivatives as analeptics in overdosage of phenothiazine drugs. Amphetamine and other pressor sympathomimetic amines, with the exception of norepinephrine, are also contraindicated for overcoming falls in blood pressure produced by the adrenolytic action of the latter drugs, as they can cause a further fall in pressure, owing to the epinephrine or vasomotor reversal phenomenon. Cautious administration of barbiturates may be required if convulsive seizures occur after phenothiazine derivative overdosage, but care must be taken to avoid possible potentiation of the depressant effects of these drugs. Norepinephrine infusion is recommended for raising blood pressure in the treatment of shock states. Do not use epinephrine. If cataleptoid or dystonic symptoms or the "neck-face syndrome" occurs, discontinuing the drug for 24 to 48 hours will usually clear these disorders promptly. The use of anti-parkinsonism drugs, such as Artane, for relief of the muscular rigidity is seldom necessary.

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MEDICAL CARE OF OLDER PEOPLE

Proponents of the King-Anderson bill to put the medical care of older people under the social security system have gone to great lengths to tell the world that the Kerr-Mills program was a dismal failure in West Virginia, and had almost bankrupted the state. Publications supposed to be as reliable and important as the *New York Times* and *Newsweek* spread the tidings that the state was unable to meet the cost of the Kerr-Mills program. The *Times* headlined its story, "Aged Care is Cut in West Virginia; Rising Costs Cause State to Stiffen Eligibility." *Newsweek's* heading, under "Medical Care," was "Financial Ulcer." Both the *Times* and *Newsweek* quoted West Virginia's Commissioner of Welfare as saying that the state's experience shows: "There is a definite need for handling the problem

under the Social Security System. A state just doesn't have the resources to carry out an adequate program."

Mr. Ribicoff, Secretary of the Department of Health, Education and Welfare, stated in an interview in the *U. S. News and World Report* that the news indicated "that West Virginia is going broke under Kerr-Mills."

The real facts of the case are given in a press release from the West Virginia State Medical Association, which should be required reading for every Congressman. The high lights in the story are:

1. On November 28, 1961, Mr. Bernard Smith, West Virginia's Commissioner of Welfare, without consulting physicians, pharmacists, or hospital administrators, announced drastic and arbitrary cutbacks in the Kerr-Mills program. He stated that the reductions were necessary "in order for the Department to continue to operate within the funds appropriated for the operation." Contracts were sent to physicians, pharmacists, and hospitals, stating, in effect, that they "must accept any fees as complete compensation that the State Commissioner of Welfare might see fit to establish."

"As a result, most physicians held in abeyance the signing of this contract until the matter could be clarified. They went back to the long accepted relationship with their patients in which a mutual agreement is made as to the payment for services based on the patient's economic status. The physicians also agreed that no elderly person should be without medical care because of the administrative problems of the Department of Welfare."

2. Mr. Smith admitted that Department of Welfare employees had, in December, 1960, and January and February, 1961, actually solicited people to apply for benefits under the Kerr-Mills program. About 30,000 people were taken into the program, but only 18,000 used it. It would seem that Mr. Smith encouraged an attempt to sabotage the program from the beginning by padding his roll of medically indigent.

3. There really was no financial emergency, despite the Welfare Department's attempt to create one. On January 11, 1962, Mr. Smith published a financial statement

showing that \$963,085.13 were available for the program. This, combined with the federal funds available, gave \$3,244,896 for operating the program through June, 1962—or \$540,816 per month. This was considerably more than the average cost for the last four months of 1961.

The West Virginia story has been told in some detail because it is important to counteract, so far as possible, the utterly false impression that has been created by the proponents of the Social Security program. The timing of Mr. Smith's edict gives authority to the final statement in a letter written by Dr. D. E. Greenelch, president of the West Virginia State Medical Association, to the editor of *Newsweek*, that many thinking people "wonder if Mr. Smith is not the victim of coercion and pressure tactics by those who would sabotage all M.A.A. programs.

"The adverse publicity the Medical Assistance for the Aged program received by this questionable 'emergency' in West Virginia, just prior to the convening of Congress, seems now to be more than a mere coincidence. Whatever the cause, let me assure you that the M.A.A. program can work in West Virginia, or anywhere else, whenever those entrusted to its administration wish it to work. Patients in need of medical care should not be made political footballs."

As final evidence that the Kerr-Mills program is very much alive in West Virginia, its state legislature has appropriated 1.3 million dollars for the next fiscal year. With federal matching funds, West Virginia will have \$4,380,000 to finance the program from July, 1962, to July, 1963.

* * *

THE STATUS OF THE FAMILY DOCTOR

Although it is admittedly difficult to get an accurate estimate of public opinion, the Opinion Research Corporation of Princeton, New Jersey, came within 1/10 of 1 per cent of forecasting the vote in the 1960 national election when on October 1 it predicted that Nixon would get exactly 50 per cent of the national vote. In *GP* for February, Mr. Mac Cahal, executive director of the American Academy of General Practice, summarized

findings of a public opinion survey conducted by the same organization to determine the attitude of people toward their doctors. The results of the survey should do much to dispel the gloomy view that the image of the doctor—especially family doctors—is so badly tarnished as to be almost unrecognizable.

Mr. Cahal thus summarized the findings of the ORC:

"1. People always want improvements, but basically, they are satisfied with American medicine.

"2. Three-fourths of the public call their family doctor first when they need help, and they feel that good medical care is centered around a particular family physician.

"3. Informed people want better medicine and are willing to pay for it. The public is well satisfied with the fee-for-service system.

"4. The outstanding characteristic of the public's medical demands is for sheer competence on the part of the family physician.

"5. The key public relations problem in medicine is to improve the *group* image; people already have a very high regard for their own doctor."

Giving more detailed information, Mr. Cahal says that three-fourths of the public believe that they are getting good medical care, while only 4 per cent think it poor. Only 18 per cent objected that medical treatment was too expensive. More than 80 per cent agreed that

"1. Doctors should be paid for whatever time and skill they devote to a case.

"2. Considering the importance of their work, doctors deserve a good income.

"3. It would be better for individuals to pay their own doctors than for taxes to be raised to pay doctors a salary."

Mr. Cahal concluded his article with the following paragraph:

"The family physician has the most favorable image, the best reputation with the public of any professional man. And with the findings of the ORC survey, we now have the facts with which to bury the myths that have too long gone unchallenged. The need now is to use the support of our greatest ally, the public."

DIETARY DELUSIONS

"By gift of chance," the same mail brought to the editorial desk a copy of *Modern Medicine* for February 19 and the *New England Journal of Medicine* for February 22. *Modern Medicine* had a feature article about Dr. Frederick J. Stare, who since 1942 headed Harvard's Department of Nutrition. In the *New England Journal of Medicine* Dr. Stare reviewed briefly three recent popular books on diet: "Calories Don't Count," by Herman Taller, M.D.; "Live to be 180," by Justine C. Glass; and "Eat Your Way to Better Health," by Andrew G. Rosenberger.

Because many doctors have been and will be asked by their patients about one or more of these or similar books, and because Dr. Stare's review characterizes them so completely and yet so briefly, it is reproduced in full:

"Recent full-page advertisements in many metropolitan newspapers extolling the 'wonders' offered by the first of these books, as well as inquiries to my office about the 'wonders,' prompt these brief review comments, which apply to all three books and the many similar ones.

"The 'wonders' are nil and ridiculous in terms of modern science. The 'proof' usually offered by the authors consists largely of testimonials, frequently concerning the author and members of his family. Seldom are the authors qualified by training, experience, or acceptance by their peers to attempt the advice given. The author of the first book is a physician, a gynecologist and obstetrician, but such training does not necessarily imply any competence in nutrition and biochemistry—a glance at this book reveals only how true this is.

"Why then do such books continue to appear? The answer, I have read, is that a health-food book with sales of half a million copies will earn over \$250,000 in royalties for the author, close to \$1,000,000 for booksellers, and \$500,000 for the publisher.

It is sad to report that probably half the nation's major publishing houses have succumbed to the lure of health-food publishing."

* * *

SPACE AGE CASKETS

As the present becomes increasingly recognized as the space age, it is inevitable that the idea will be used for commercial purposes by various alert business men. A recent example of this trend was a circular that came to the editorial office "for immediate release," advertising "a casket that will not rot, rust, corrode or deteriorate."

The name of the manufacturing concern is, fittingly, "Eternal Products," and the product is named, Epic casket. It is "made completely of hi impact styrene and rigid urethane foam, is void of wood and metal, and provides an enduring casket that is light in weight and low in cost. The new casket achieves strength and fine appearance and will cremate with less residue than wood."

This statement leaves the impression that the casket itself will serve as a crematory. If so, the deceased one's friends will have a real bargain. And if the casket is to undergo cremation along with the body, its cost should indeed be low.

The circular concludes with the statement that the Epic casket "was engineered, researched and developed over a period of two years to produce a completely new concept in caskets made with space age materials."

It does not require too great a stretch of the imagination to envision that in a few more years there may be "researched and developed" for funerals, when cost is not a consideration, a casket that may be projected into orbit from a mortuary launching pad, and messages relayed back to relatives from equipment enclosed in the casket along with the corpse.

Correspondence

PERSONAL AND SOCIAL CONSEQUENCES OF UNWED MOTHERHOOD

To the Editor:

The following letter was addressed to members of the medical profession in North Carolina. More than 300 physicians have thus far expressed their willingness to participate in our study of unwed motherhood by responding affirmatively to our initial request.

Now that we have a quite satisfactory number of participants, though hopefully to be increased, our major concern shifts to data-collection. If these physicians follow through adequately, we will have some meaningful data for ourselves and the medical profession.

We request your cooperation, as a member of the medical profession, in a research project being undertaken at the University of North Carolina. This project has been discussed with members of our advisory panel, and each has personally endorsed it*. The Committee on Maternal Welfare of the State Medical Society has encouraged the study by giving its approval.

This study is designed to contribute to our knowledge of illegitimacy and its personal and social consequences. The following subjects are among those to be investigated: characteristics of recidivists, changes in life patterns occasioned by the pregnancy, socioeconomic class differences in various perceptions and attitudes, and migration.

For one important segment of our research, we are seeking the cooperation of physicians. They have contact with several types of subjects that cannot be approached in any other way, and they have unique opportunities to assess certain factors of importance. In requesting your cooperation, we wish to stress several points:

1. The **anonymity** of every patient is fully protected by the procedures to be used.
2. The **individual** physician has full control of the data collection.

*Endorsing physicians: Drs. W. T. Armstrong, Rocky Mount; Andrew A. Best, Greenville; Bayard Carter, Duke University School of Medicine; Walter B. Cherry, Duke University School of Medicine; James F. Donnelly, State Board of Health; Eleanor B. Easley, Durham; W. W. Hoffer, Elizabeth City; John R. Kernodle, Burlington; Frank R. Lock, Bowman Gray School of Medicine; Fred G. Patterson, Chapel Hill; Robert A. Ross, University of North Carolina School of Medicine; Claude B. Squires, Charlotte; Charles D. Watts, Durham.

The project was approved by the Executive Council, Medical Society of the State of North Carolina, on January 28, 1962.

3. The study focuses **entirely** upon the attributes and perceptions of unwed mothers. No information is sought which relates to the nature of patient care or treatment.
4. Non-medical information is sought concerning each patient who is pregnant and unwed when she comes to the physician for professional aid through his **private** practice.
5. The research is concerned with illegitimacy throughout the State, among all socioeconomic classes, and within both major racial groups.

Cooperation is being requested of a random sample of North Carolina physicians who have maternity patients. There will be a brief, check-type questionnaire (timed for about ten minutes) for the physician to fill out; and a short supplementary schedule is to be filled in by each such unwed, pregnant patient.

Most physicians will see relatively few such patients during the period of data collection—about six months. The cooperation of the entire sample of physicians is needed to secure a representative cross-section and an adequate number of cases for analysis. The participation of those who will see but **one** unwed mother is needed equally with those physicians who may see ten or more, if a sampling bias is to be avoided.

The results of our research will be published in professional media and will thereby be available to the medical profession. This is a fact-finding study, so it is not our purpose to make recommendations for political or social action. Applications of the findings will be left to the physicians and other professional groups working with unmarried mothers in their own fields of practice.

Would you please indicate your willingness to participate by responding on the enclosed card, using the return envelope. The information is needed either (a) to enable us to provide you with the appropriate number of blanks, or (b) to permit us to estimate the sampling bias resulting because some feel they cannot participate. Your comments will be welcomed. Thank you.

DONALD P. IRISH, Ph.D.

Research Associate

Institute for Research in Social Science
University of North Carolina
Chapel Hill

A STATEMENT ON DIAPULSE

To the Editor:

The Medical and Scientific Committee of The Arthritis and Rheumatism Foundation is of the opinion that the publicity now being given to the device known as "Diapulse" as "a dramatic breakthrough in the treatment of arthritis" or "the best treatment of

arthritis now available" with all the connotations that go with such statements is not in the best interest of the patients with this affliction or their physicians. It is the opinion of the committee that the evidence from clinical trials to date does not warrant these statements.

The true value of a particular form of treatment for arthritis cannot be based on early clinical experience which frequently leads to initial enthusiastic reports which may not be substantiated later by extended trials. This is especially the case in rheumatoid arthritis which has periods of natural, spontaneous remission during which the patient seems to improve no matter what is being done for him.

RONALD W. LAMONT-HAVERS, M.D.
Medical Director
The Arthritis and Rheumatism
Foundation

CURRENT LITERATURE ON VENEREAL DISEASE To the Editor:

Since 1957, infectious syphilis has been increasing at an alarming rate in all races, sexes, ages, social groups, and geographic areas. Physicians who have not observed a single case of infectious syphilis in 20 years suddenly are finding it among their patients.

Concurrent with this resurgence, unfortunately, is a paucity of venereal disease literature and information available to the private physician.

To partially alleviate this situation and serve a pressing need, the Venereal Disease Program of the Public Health Service routinely abstracts current articles on venereal diseases from almost 1,000 journals both domestic and foreign. A publication entitled "Current Literature on Venereal Disease" including these abstracts is printed three or four times a year and indexed annually. It is distributed regularly free of charge to physicians on their personal request.

Will you please, as a service to your readers, alert them to the availability of this publication and suggest that if they wish to receive it, they may write to Communicable

Disease Center, Atlanta 22, Georgia, Attention: Dr. William J. Brown, Chief, Venereal Disease Branch, requesting that their names be added to the mailing key for "Current Literature on Venereal Disease."

WILLIAM J. BROWN, M.D.
Chief, Venereal Disease Branch
Communicable Disease Center
Atlanta 22, Georgia

Bulletin Board

COMING MEETINGS

Southeastern Dermatological Association Meeting—University of North Carolina, Chapel Hill, April 28-29.

Medical Society of the State of North Carolina, Annual Meeting—Sir Walter Hotel, Raleigh, May 5-9.

North Carolina Heart Association, Annual Meeting—Sir Walter Hotel, Raleigh, May 24.

South Carolina Medical Association, Annual Meeting—Ocean Forest Hotel, Myrtle Beach, May 9-10.

American Ophthalmological Society Meeting—The Homestead, Hot Springs, Virginia, May 28-29.

American Gynecological Society Meeting—The Homestead, Hot Springs, Virginia, May 31-June 2.

Tri-State Medical Association of the Carolinas and Virginia, Annual Meeting—The Carolinian, Nags Head, June 11-13.

Mountaintop Medical Assembly—Waynesville, June 21-13.

Seaboard Medical Association, Annual Meeting—Nags Head, June 21-24.

NEW MEMBERS OF THE STATE SOCIETY

The following physicians joined the Medical Society of the State of North Carolina during the month of February, 1962:

Dr. Harold Tracy, Jr., 1822 Brunswick Avenue, Charlotte; Dr. William B. Stryker, Burnsville; Dr. Caroline Hollingsworth Callison, Sampson County Health Department, Clinton; Dr. Herbert Raymond Madry, Jr., Box 516, Roseboro; Dr. Henry James Carr, Jr., 405 Cooper Drive, Clinton; Dr. Charles Leslie Sweeney, Jr., 2514 Fairview Road, Raleigh; Dr. Peter Leo Hein, Jr., Duke University Medical Center, Durham; Dr. Blaine S. Nashold, Jr., Duke University Medical Center, Durham; Dr. John Thaddeus Monroe, Jr., N. C. Memorial Hospital, Chapel Hill; Dr. Rubin Bresler, Duke University Medical Center, Durham; Dr. William Edward Gough, Duke University Medical Center, Durham; Dr. George Barton Dy-sart, 202 S. Caldwell Street, Brevard; Dr. Albert Olen Ryan, Jr., Olin Medical Center, Pisgah Forest.

NEWS NOTES FROM THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE

Several professors of the School of Medicine have addressed pharmacists participating in a six-meeting series of a drug symposium sponsored by the School of Pharmacy.

Among the speakers were Dr. William J. Cromartie, professor of bacteriology and director of Bacteriological and Serological Laboratories; Dr. William R. Straughn, Jr., associate professor of bacteriology; Dr. John K. Spitznagel, associate professor of bacteriology; and Dr. John H. Schwab, associate professor of bacteriology.

Dr. Clayton E. Wheeler, Jr., formerly of the University of Virginia School of Medicine, recently assumed the position of professor of dermatologic medicine at the School of Medicine.

Dr. Wheeler will be chief of the Division of Dermatology of the School of Medicine and N. C. Memorial Hospital.

* * *

Dr. Robert A. Ross, chairman of the Department of Obstetrics and Gynecology delivered seven lectures before the seventeenth annual Obstetrical and Gynecological Assembly of Southern California at Los Angeles February 10-17.

* * *

Dr. Louis G. Welt and Dr. W. E. Lassiter, both of the Department of Medicine participated in a post-graduate course sponsored by the American College of Physicians in Philadelphia on April 5-7.

Dr. Welt spoke on "Edema and Diuretics" and Dr. Lassiter discussed "Renal Handling of Water and Solutes."

* * *

Dr. Ernest Craige, associate professor of medicine and chief of cardiology, spoke at the first annual meeting of the Association of University Cardiologists in Chicago recently.

He addressed the Association on "Foreign Graduate Medical Education: Problems, Opportunities and Responsibilities in the Cardiovascular Field."

* * *

Dr. Hans H. Strupp, director of psychological services of the Department of Psychiatry, presented a lecture at the Allan Memorial Institute of Psychiatry of McGill University in Montreal, Canada on March 3.

* * *

Dr. William M. Clarke, son of Mr. and Mrs. M. J. Clarke of Fayetteville, has been chosen as one of the 20 recipients of the Wyeth Pediatric Fellowship Awards with an annual stipend of \$2,400 effective next July 1. Dr. Clarke received his M.D. degree from the University of North Carolina last June and is serving a straight pediatric internship at N. C. Memorial Hospital.

NEWS NOTES FROM THE BOWMAN GRAY SCHOOL OF MEDICINE OF WAKE FOREST COLLEGE

Five seniors, two juniors, and one faculty member of the Bowman Gray School of Medicine have been elected to membership in the Beta chapter of North Carolina of Alpha Omega Alpha, honorary medical society.

Seniors elected were Richard Adams, Winston-Salem; Charles N. Feezer Jr., Salisbury; Robert P. Pulliam, Beckley, West Virginia; and Ralph and Christine Siewers, Winston-Salem. Juniors elected were Herman Godwin Jr., Dunn, and Wade H. Lefler Jr., Newton. Dr. William H. Boyce, professor of urology, was elected from the faculty.

The new members will be installed at a banquet scheduled for May 15. The speaker will be Dr. Severo Ochoa, professor of biochemistry at the New York University College of Medicine, who won the Nobel prize in physiology and medicine in 1959.

* * *

Dr. Nash Herndon, professor of preventive medicine and medical genetics, has been awarded a National Institutes of Health grant in the amount of \$29,950 for the genetic study of atherosclerosis.

* * *

Dr. Howard H. Bradshaw, professor of surgery, spoke to a combined meeting of three medical societies in Elizabethtown, Tennessee, last month. His subject was "Stone, Bones and Hormones: The Problem of Hyperparathyroidism."

* * *

Dr. James A. Harrill, professor of otolaryngology, has been awarded a grant from the Deafness Research Foundation for the establishment of a temporal bone pathology laboratory.

* * *

Dr. Felda Hightower, associate professor of surgery, has been chosen president-elect for the Forsyth County Medical Society. He will take office in 1963.

* * *

Dr. Camillo Artom, professor of biochemistry, recently served as moderator of a session on "Catabolism of Phospholipids" at the seventh Deuel Conference on Lipids held in Santa Barbara, California.

* * *

Dr. Norman M. Sulkin, professor of anatomy, has received a grant from Dysautonomia, Inc., for the histochemical, cytologic, and electron microscopic studies of autonomic ganglia cells.

* * *

Dr. D. Leroy Crandell, associate professor of anesthesiology, spoke on the "Physiology of Hypothermia" at the Washington Medical Center, Washington, D. C.

Lt. Col. Edward Marks, MSC, instructor in nuclear science at the Medical Service School, Brooke Army Medical Center, Fort Sam Houston, Texas, spoke on the "Medical Aspects of Nuclear Warfare" at a lecture sponsored by the Committee on Medical Education in National Defense.

NEWS NOTES FROM THE DUKE UNIVERSITY MEDICAL CENTER

Duke University Medical School Dean Barnes Woodhall has been named to the North Carolina Atomic Energy Advisory Committee.

Appointed by Governor Terry Sanford, Dr. Woodhall will serve as chairman of the sub-committee on medicine and public health. He succeeds Dr. W. C. Davison, retired dean of the Duke Medical School, who was on the committee for a number of years.

* * *

Dr. Daniel C. Tosteen has been appointed professor and chairman of the Duke University Medical Center's Department of Physiology and Pharmacology, succeeding Dr. Frank G. Hall. Dr. Tosteen was a faculty member at the Washington University School of Medicine, St. Louis, Missouri before coming to Duke.

Dr. Hall relinquished the chairmanship in order to devote more time to research in the Duke Aero-Physiology Laboratory, which he has directed since 1948. He will remain on the faculty as professor of physiology until his retirement in 1965.

* * *

Dr. Eugene A. Davidson of the Duke Medical Center's biochemistry faculty is studying chemical changes in the body's connective tissues with advancing years.

Grants totaling \$118,000 to support his work over a five-year period have been allotted by the National Institutes of Health, research arm of the U. S. Public Health Service.

A related study concerned with the chemical composition of the skin is being conducted jointly by Dr. J. Graham Smith Jr., associate professor of dermatology at Duke.

* * *

Dr. John W. Everett, professor of anatomy, has been named a member of the International Brain Research Organization.

He will serve on the Neuroendocrinology Panel, one of seven divisions of the organization. His research is concerned with the pituitary gland and its relation to reproduction.

* * *

Dr. Charles Tanford, professor of physical biochemistry at the Duke University Medical Center, has received a \$21,507 Research Career Award from the National Institutes of Health, research arm of the U. S. Public Health Service.

Dr. Tanford, currently is studying the structure of protein molecules in order to learn more about how they carry out their biological functions as important "building blocks" of all living creatures.

* * *

Medical students from six states visited Duke University Medical Center on March 10 for the Region I spring meeting of the Student American Medical Association.

Duke medical student Angus McBryde Jr. of Durham, head of Region I, officiated over the business and discussion sessions.

Dr. Amos Johnson of Garland, immediate past president of the North Carolina Medical Society, was a special guest for the meeting. He addressed SAMA members at a Saturday evening banquet.

NEWS NOTES FROM THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association has thrown its full support behind a new nationwide campaign for periodic medical examinations for young people of school age.

The campaign is a vital part of the over-all program sponsored by President Kennedy's Council on Youth Fitness, and a reaffirmation of a continuing effort on the part of A.M.A.

A.M.A.'s continued support of periodic health examinations was expressed in a letter sent to over 1,900 county medical societies by President Leonard W. Larson.

"I strongly urge constituent medical societies to cooperate with the school authorities and others concerned in working out locally acceptable procedures for such examinations," he said.

* * *

Medical societies around the country are setting the wheels in motion for a new public service advertising campaign designed to reach the public with medicine's story.

The first six in this new series of open-end ads for placement in local newspapers were sent by the American Medical Association to county societies January 29. An advance mailing was sent to state societies earlier in the month.

* * *

An American Medical Association booklet has just been brought up to date and is being offered to help medical assistants explain to patients how some of the spectacular new techniques in medicine are helping Americans live longer and get more from their health dollars.

Entitled "The ? Cost of Medical Care (1940-1960)," the booklet points out that Americans spend more today for medical care, but buy more and better services than ever before.

Another important factor brought out is that

physicians' fees have not risen as much as the prices of many other goods and services we buy. Between 1940 and 1960 doctors' fees rose only 95 per cent.

As members of the health team, doctors may be asked quite frequently about various aspects of medical care and health insurance. This little booklet gives many of the answers. Those who would like to have a few copies for distribution in their offices may get them by writing to Special Services Department, American Medical Association, 535 North Dearborn, Chicago 10, Illinois.

THE JOHN AND MARY R. MARKLE FOUNDATION

Twenty-five young medical scientists, all faculty members of medical schools in the United States and Canada, have been appointed Markle Scholars in Medical Science by the John and Mary R. Markle Foundation of New York.

A total of 330 men and women in 80 medical schools have been aided during the fifteen years of the program through grants totaling \$10,000,000. The program has helped to relieve the faculty shortage in medical schools by giving support to young teachers and investigators early in their careers.

Each appointment provides a \$30,000 grant to the medical school where the scholar will teach and do research, paid at the rate of \$6,000 a year to supplement his salary and aid his research. Medical schools are urged by the President of the Foundation, John M. Russell, to use the grant as "free, unrestricted funds, for the development of the Scholar as teacher and investigator."

Among the 25 new scholars whose appointments begin in 1962 are Richard B. Patterson, instructor in pediatrics, Bowman Gray School of Medicine of Wake Forest College; and Delford L. Stickel, assistant professor of surgery, Duke University School of Medicine.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

Applications for certification in the American Board of Obstetrics and Gynecology, new and reopened, for the 1963 Part I Examinations are now being accepted. Candidates are urged to make application at the earliest possible date. The deadline date for receipt of applications is July 1, 1962.

All applicants and candidates for reexamination are required to submit with their application or

arlidin
increases
blood flow
to the brain
in the
"senility syndrome"
associated
with
cerebrovascular
insufficiency



letter of request, a duplicate list of their hospital dismissals for the preceding 12 months, made up in accordance with the revised format shown on the last page of the current Bulletin.

Current bulletins outlining present requirements may be obtained by writing to Robert L. Faulkner, M.D., Executive Secretary, American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6, Ohio.

Diplomates of this Board are requested to inform the Office of the Executive Secretary of any change in address.

AMERICAN PHARMACEUTICAL ASSOCIATION

Wholesale prices of prescription drugs in 1961 declined over-all for the third straight year, the Firestone Index reveals.

The Index, which measures manufacturers' wholesale prices to drugstores and hospitals, is constructed annually under the supervision of Dr. John M. Firestone, professor of economics at City College of New York and consultant to the U. S. Bureau of Labor Statics.

Dr. Firestone said the drug price index has declined in nine of the years since 1949 and has shown an increase in only three. The Index is

now at the lowest level for the entire period, he added.

The 1961 fall was largely influenced by price reductions in antibiotics that occurred in the latter half of 1960, Dr. Firestone said. Vitamins, hormones, and dermatologic products showed less spectacular declines.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

Fellowships to provide a group of young Americans clinical medical experience in underdeveloped countries have been given to 33 junior and senior medical students, the Association of American Medical Colleges has announced.

The scholarships are made possible by a \$60,000 yearly grant from Smith Kline & French Laboratories, Philadelphia pharmaceutical firm. With the current selection, the association in three years has awarded a total of 92 fellowships for study in 33 countries.

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

The Food and Drug Administration proposes to tighten up regulation of preparations to treat pernicious anemia. So-called "intrinsic factor"

Inadequate cerebral blood flow—often due to cerebral arteriosclerosis—may result in the "senility syndrome" with its pattern of mental confusion, memory lapses, depression, fatigue, apathy and behavior problems.¹⁻³

43% increase in cerebral blood flow with Arlidin⁴

In patients with cerebrovascular insufficiency, Eisenberg⁴ measured a 43 per cent increase in blood flow in the brain following administration of Arlidin orally for more than two weeks beginning with a dosage of 12 mg. t.i.d. and increasing to 18 mg. t.i.d. There was a decrease in cerebral vascular resistance in most instances.

Winsor and associates³ found Arlidin "of particular value clinically in relieving some of the symptoms of cerebral vascular insufficiency (vertigo, light-headedness, mental confusion, diplopia)."

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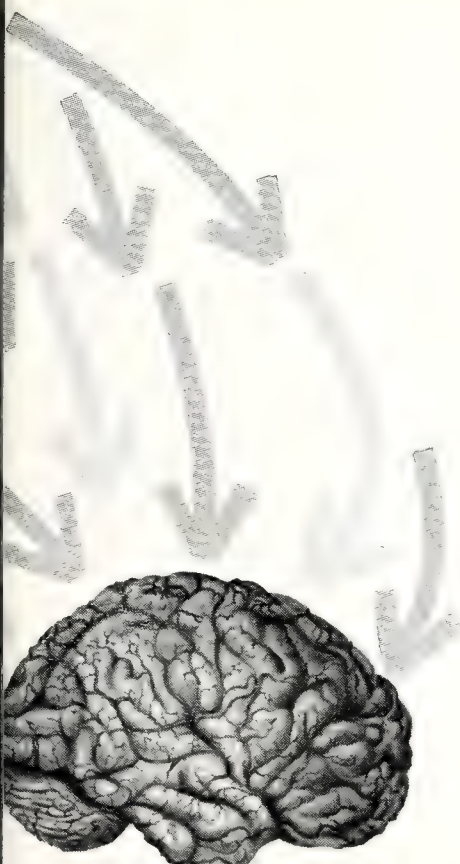
(BRAND OF NYLIDRIN HCl NND)

references: 1. Madow, L.: Penn. M. J. 62:861, June 1959. 2. Stieglitz, E. J.: Geriatric Medicine, ed. 2, Philadelphia, Saunders, 1949 p. 274. 3. Winsor, T., et al.: Amer. J. Med. Sciences 239:594, May 1960. 4. Eisenberg, S.: *ibid*, July 1960.

NOTE—before prescribing ARLIDIN the physician should be thoroughly familiar with general directions for its use, indications, dosage, possible side effects and contraindications, etc. Write for complete detailed literature.

u. s. vitamin & pharmaceutical corporation

Arlington-Funk Labs., division • 800 Second Ave., New York 17, N. Y.



products would be labeled for sale only upon prescription under a proposal published recently in the Federal Register.

The statement of policy would also require that any orally administered drug for the treatment or prevention of pernicious anemia bear a warning stating it is not a reliable substitute for injections of vitamin B12 and that periodic examinations and laboratory tests are essential.

* * *

An all out effort to develop vaccines against the widespread respiratory infections—commonly grouped under the general term of “common cold”—has been announced by Surgeon General Luther L. Terry of the Public Health Service.

Dr. Terry said he has created at the National Institutes of Health a Vaccine Development Program to make fullest use of existing information about respiratory tract viruses even as laboratory research continues to uncover new information.

The new program will be directed by Dr. Dorland J. Davis, Associate Institute Director in charge of Research.

A Board for Vaccine Development, composed of outstanding scientists in respiratory research, will advise Dr. Davis. Among its members is Dr. Floyd W. Denny, Jr., professor of pediatrics, University of North Carolina School of Medicine.

FIRST OPERATIONAL STORAGE AND RETRIEVAL SYSTEM

The communication of scientific information took a forward step on January 8, 1962, with the institution of Mediphone.

This is a central repository in Washington, D. C., which has filed automatically complete information on all of the 8,500 drugs and chemicals in use at the present time. In some cases there may be 20 or more names for the same drug.

A subscriber to Mediphone needs only to call this service, and in a matter of seconds he will receive whatever information on a drug that he desires.

This systematic organization of material and the pinpoint retrieval of any designated facet is one of the miracles of our age. The machines that do this work can work faster than the human brain.

Mediphone at present is a distant early warning system for drugs. It has filed all the published information of the past fifteen years on how each drug reacts on the human body, dosages, methods of administration, side-effects, contraindications, and antidotes.

The future of storage and retrieval makes exciting speculation. When doctors start to feed

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A private psychiatric hospital employing modern diagnostic and treatment procedures—electro shock, insulin, psychotherapy, occupational and recreational therapy—for nervous and mental disorders and problems of addiction.

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back to Mediphone their own individual experiences with drugs and an analysis of the questions is made, the usable information will become truly comprehensive, and statistics will actively serve the practicing physician and all those interested in the field of pharmacology.

The robot of course will never replace the doctor's judgment, but it can act as a multi-volumed library instantly available on the other end of the telephone.

It is not recorded what question Leonard W. Larson, M.D., President of the American Medical Association, put to Mediphone on the first ceremonial call on January 8, but it might very well have been, "What hath God wrought?"

Mediphone is a private enterprise. It has at no time received financial aid from government. For those who are interested, the address is Mediphone, Inc., 1500 Massachusetts Avenue N.W., Washington 5, D.C. The telephone number is 332-8827.

REDWAY MEDAL

The first Laurance David Redway Medal will be awarded at the Annual Meeting of the Medical Society of the State of New York which will be held in New York City, May 14 to 18, 1962.

A gold medal and cash prize of \$500 in memory of the late editor of the New York State Journal of Medicine will be awarded annually for the article judged to be the most outstanding of those which appeared in the Journal during the previous year.

Every Journal subscriber is invited to send his nomination to the editor of the Journal for the best article which appeared in the Journal in 1961, giving brief reasons for the choice.

Dr. Lasersohn Retires After 32 Years With Winthrop

Martin Lasersohn, M.D., one of the most widely-known members of the pharmaceutical industry, has retired as executive vice-president of Winthrop Laboratories after 32 years of service with the company, a division of Sterling Drug Inc.

ADLER—TEXTBOOK OF OPHTHALMOLOGY

Concentrates on the ophthalmic problems of the non-specialist—stressing diagnosis, treatment and indications that call for a specialist.

MAJOR AND DELP—PHYSICAL DIAGNOSIS

Offers step-by-step procedures for examining every area of the body by inspection, palpation, percussion and auscultation.

REID—TEXTBOOK OF OBSTETRICS

Gives you not only a clear picture of normal pregnancy and labor, but sound insight as well into the medical complications that may arise.

Book Reviews

History of the Voluntary Mental Health Movement in North Carolina. By Ethel M. Speas, A.C.S.W. Price, paper bound, \$1.25; cloth, \$2.25 (Write for quotation of price in quantities of five or more) Greenville, North Carolina: The North Carolina Mental Health Association, 1961.

Essentially this book is the story of the North Carolina Mental Health Association, but the history contains many references to what was happening in other organizations as well as accounts of the contributions of many outstanding agencies and individuals in North Carolina.

Reference is made to the role played by Clifford W. Beers, the founder of modern mental hygiene, in promoting the voluntary mental health movement in this state. This history also contains the essence of the information about the heroic efforts of Dorothea L. Dix on behalf of the mentally ill over a century ago.

The volume is documented by special reference to source material. The appendix contains a condensed recording of mental health developments in North Carolina from 1848 to 1961.

The author, Miss Ethel Speas, a native of North Carolina, has served as a social worker in child and adult work in the state for several years. She was executive secretary of the North Carolina Mental Health Association from 1951-1957.

This book should be of value to all who are working in or studying mental health.

The Nature of Sleep. Ciba Foundation Symposium. Edited by G. E. W. Wolstenholme and Maeve O'Connor. 416 pages. Price, \$10.00. Boston: Little, Brown and Company, 1961.

This volume contains 19 papers presented during a two-day symposium in June, 1960. The presentations are scholarly, comparable to those in the Journal of Neurophysiology, and the discussions are stimulating. Most of the participants are accomplished neurophysiologists. Several mechanisms of sleep production are evaluated and generally accepted by the group. The reader concludes that sleep may result from disruption of the ascending reticular activating system as described by Bremer, active cortical inhibition as proposed by Pavlov, or diencephalic stimulation in the hypothalamic centers as explored by Hess. The problem of the necessity for sleep is stressed as an equally difficult phenomenon to study.

Approximately two-thirds of the book is devoted to a description of intracerebral recordings, both intracellular and intercellular, following de-

structive lesions in the brain stem and hemispheres. The influence of external stimuli, anesthetics, and muscle relaxants on alertness is thoroughly evaluated. Almost all of this experimental work was done on cats. Many participants describe stages of sleep, and attempt to find more than arbitrary electrical changes to correspond with them.

The presentations suggest that the inhibition of intraneuronal pacemakers, perhaps by recurrent axon collaterals, modified by the waves of inhibition and excitation precipitated by the external environment, are important phenomena underlying sleep. Surprisingly, neuron activity is seen to increase in many regions during the transition from arousal to sleep, according to Verzeano. Both the frequency of individual unit discharges and the propagation of impulses vary inconstantly with the stage of sleep. Evarts describes a decrease or arrest of activity in single units of the visual cortex and the reticular formation of the brain stem with arousal, and proposed a kind of differential awakening. Dell discusses deactivation influences descending from the cortex into the reticular formation. The reader gets the impression that sleep is the result of the interplay of intrinsic cortical activity and the imposed output of the reticular formation, and that this latter cellular network has been conditioned by years of diurnal activity. The jargon of professionals is occasionally unclear. The terms "disinhibition" (p. 51) and "active deactivation" (p. 89) are confusing.

The general application of animal experimentation to the changes found in sleeping human beings is cautious. Comparisons are, for practical purposes, limited to those between cats and human beings. There was substantial agreement that cats seldom exhibit signs, electrical or behavioral, of what is described as deep sleep in humans. It is postulated that the well-being of animals always has been in great jeopardy during hours of sleep, whereas the human being has gradually become accustomed to the privilege of continued protection during sleep.

Sleep phenomena in man were specified as spontaneous sleep, induced sleep with sedatives or general anesthetics, narcolepsy, obnubilations, comas, akinetic mutism, and the sleep associated with hypothermia and hibernation. Gastaut, in a discussion of auditory and visual habituation as a cause of sleep, showed that some army volunteers, when exposed to rhythmically repeated stimulation, were exceptionally susceptible to sleep. The importance of this finding with respect to monotonous tasks in the presence of rhythmically flashing signals or repeated monotonous noises was discussed, but we are given no definite recommendations covering it.

Kleitman presented his many experiments correlating eye-movements during sleep with dreaming. He is convinced that dreams occur only as

we become more alert from a deep slumber. He does not believe dreams are a requirement for useful sleep or adequate sleep. (In fact dreams may be an unnecessary indulgence which our brains "enjoy" but do not require.) In a brief non-Freudian discussion, Kleitman characterizes dreams simply as crude thinking.

There is an interesting chapter on hibernation which includes the observation that European hedgehogs sleep approximately 10 months of every year. The discussants consider that hibernation may prevent wear and tear upon many vital systems, allowing, in some cases, longevity which is not found in non-hibernating members of similar species. A brief chapter about sleep habits during polar expeditions reaches the surprising conclusion that the average duration of sleep in men free to sleep whenever they desired, was approximately 8 of every 24 hours.

There is a brief subject index, an author index, and at the end of each article, a thorough bibliography. There is no discussion of the treatment or diagnosis of clinical problems of sleep. The book is a 416 page summary of current information and is recommended as a reference for students of sleep.

World Medical Periodicals. Edition 3. 476 pages. Price \$7.00. New York and London: The World Medical Association, 1962.

"World Medical Periodicals" is an important reference book for authors, editors, librarians, medical schools, research establishments, publishers, and booksellers. Through the three editions the aim has been to compile a selected list of titles out of the more than 10,000 medical journals now coming off the presses. The Third Edition gives carefully revised details of more than 5,800 journals of medicine, pharmacy, dentistry, and veterinary medicine, indexed by subject and by country.

The International Code for the Abbreviation of Titles of Periodicals is set out in the Introduction, and the appropriate abbreviation is included opposite each title listing. Each entry gives the title in the original form. In addition, translations have been added to Japanese titles, and transliterations to Greek and Cyrillic titles.

The name and address of the publisher, the language of the journal where this is not apparent, and the frequency of publication is shown. Change of title, or the incorporation of one journal with another, are also indicated.

As only a limited number of this edition have been printed, orders should be submitted without delay to The World Medical Association, 10 Columbus Circle, New York 19, New York.

The Month in Washington

The American Medical Association said that President Kennedy misstated the real issue when he renewed his request to Congress for legislation that would provide limited health care for the aged under social security.

"We believe the American people are entitled to know that the real issue is not medical care versus no medical care for the elderly," Dr. Leonard W. Larson, president of the A.M.A. said.

"The real issue is: should wage-earners and employers be forced to pay a substantial increase in taxes to provide medical care for millions financially able to take care of themselves?

"No one supporting this proposal has yet presented any evidence that such radical legislation is needed.

"The medical profession is for the Kerr-Mills law to help the aged who need help. We are for voluntary enterprise, including health insurance and prepayment plans for the non-needy aged."

Dr. Larson also disputed other statements on the issue which President Kennedy made in a new health message to Congress. Dr. Larson said that, contrary to what Mr. Kennedy said, the Administration legislation (the King-Anderson bill) could interfere with the patient's freedom of choice of hospital and physician.

It would give the federal government "such broad power to control the practice of medicine in the nation's hospitals that the Secretary of Health, Education and Welfare would literally become the czar of American medicine," Dr. Larson said.

Dr. Larson also pointed out that it would not be a health insurance program as President Kennedy said. Instead, it was "political medicine," Dr. Larson said.

"As the Supreme Court of the United States has ruled, Social Security is strictly a tax program with current taxes used principally to provide benefits for those now retired," Dr. Larson said.

President Kennedy's new health message

was a summation of various Administration proposals in the field with some additions. It included:

- Federal aid for construction of medical schools and scholarships for medical students.

- Expanded health research, including a new institute for child health and human development.

- More funds for the National Institute of Mental Research.

- Federal loans to help set up group practice clinics.

- Encouragement of states to provide medical services for migrant workers.

- Federal research and grants to help combat air pollution in cities.

- A three-year program of federal assistance to get American children vaccinated against polio, diphtheria, whooping cough, and tetanus. The government would pay the cost of vaccines for all children under five, provided state and local communities set up inoculation programs.

- Establishment of a National Environmental Health Center "to provide a focal point for nationwide activities in the control of air pollution, water pollution, radiation hazards, and occupational hazards."

A broad investigation of cold remedies to determine whether their advertising overstates their effectiveness has been started by the Federal Trade Commission.

As a start, the Commission sent questionnaires to 24 major manufacturers of cold remedies. Answers to the questionnaires are mandatory under the Federal Trade Commission Act. When and how many additional manufacturers will receive similar questionnaires has not yet been determined.

The answers to the questionnaires will enable the Commission to make a comprehensive review of problems throughout the entire field and will assist in evaluating scientific evidence claimed for the medicinal preparations.

The survey seeks information on all such preparations offered for the relief or treatment of congestion, irritation, inflammation, infection, allergy of other conditions involving any part of (1) head, including the ac-

cessory nasal sinuses, (2) throat, (3) bronchitis, (4) chest, or other portions of the respiratory system. The questionnaires also seek information on claims for the relief or treatment of any symptoms or manifestation of these ailments.

The Commission's resolution stated that it had reason to believe that certain corporations in offering such products to the public "may have falsely advertised and misrepresented" their efficacy. The resolution added that the public interest required that an investigation be conducted to determine whether such advertising was in violation of the Federal Trade Commission Act.

The names of the 24 manufacturers to whom the questionnaires were sent will not be disclosed, an FTC spokesman said.

In Memoriam

Horace Gilmore Strickland, M.D.

The passing of Dr. Horace Strickland came as a great shock to our entire community.

Before locating in Greensboro, Dr. Strickland attended the Nash County Schools after which he attended the University of North Carolina, where he completed his pre-medical work and his first two years in medicine. Dr. Strickland then transferred to the University of Maryland, receiving his M.D. degree from that institution. Following his internship he did extensive graduate work in otorhinolaryngology with Dr. Zinn in Baltimore, and served a two years' residency in ophthalmology. Upon completion of this work he located in Greensboro, North Carolina in the summer of 1936.

Dr. Strickland was a member of the Guilford County Medical Society, the North Carolina State Medical Society, the American Medical Association, and the American College of Surgeons. He also was a Diplomate of the Board of Ophthalmology. He served in the U. S. Navy during World War II, and was discharged with the rank of Commander.

In the passing of Dr. Horace Strickland, Guilford County Medical Society lost a competent physician and a sincere friend. Nature bestowed on him a lovable personality, and this combined with his sincerity created a host of friends for Horace Strickland throughout the state.

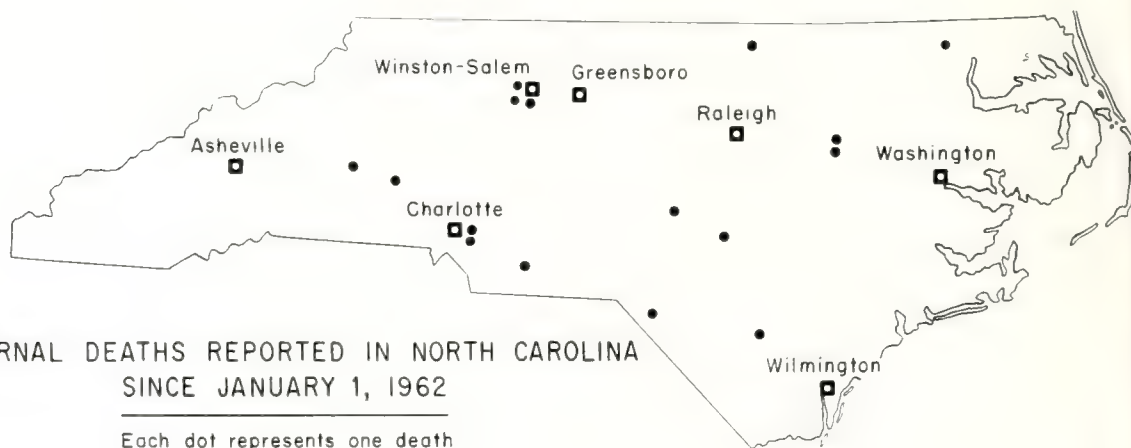
Few physicians in our community commanded more respect as an individual and as a physician than Dr. Strickland. He will long be remembered by his many patients and friends for his kindness, and professional skill.

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Medical Journal



May, 1962
Vol. 23, No. 5

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President Squire's Farewell Address

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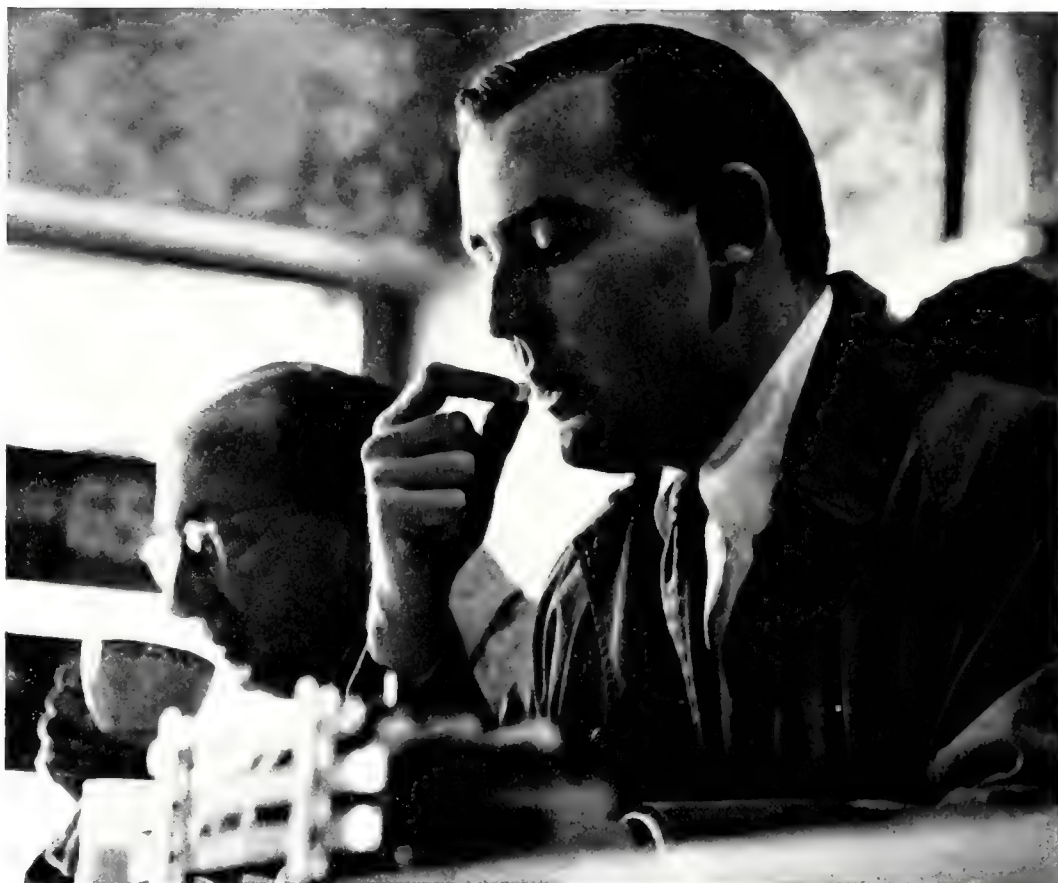
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*Schwartz, I. R.:

Current Therap. Res. 3:29, Feb., 1961.

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No. 5

President's Farewell Address

CLAUDE B. SQUIRES, M.D.

CHARLOTTE

In the time allotted to me today I don't expect to tell you anything that you don't know already, but I do hope that in refreshing your memory I may encourage you to do some serious thinking and take some action to improve the situation in which American medicine finds itself today.

First let me make my personal position clear.

I firmly believe in the free enterprise system in business and medicine, and in the free practice of medicine.

I believe that the practice of medicine, and all related matters, should be given back to the doctors of medicine.

I believe that politics, political issues, and all affairs of state should be left to the politicians and those who make a career of government—with the one reservation that I maintain my right to vote as I see fit.

It appears to me, however, that under existing circumstances we need some doctors to practice politics—and, I might add, we're a little late getting started in this area.

A Lesson for Physicians

A few weeks ago, in a Charlotte recorder's court, a 16 year old girl was prosecuting a 17 year old boy. The charge was assault.

Testimony showed that the girl was the mother of two children, but was not married. Further, the boy she had charged with assault was the father. In similar cases, the judge usually suggested the possibility of marriage. In this particular case, both the boy and the girl were receptive to the idea.

The judge then called the girl's mother to

the bench and asked if she had any objections to the marriage.

"Yessuh," she replied.

"Why?" the judge asked.

"They is too young," she explained.

If there is a lesson for physicians in this story, I think it might well be that we've been on pretty intimate terms with politicians for a good many years now. This courtship—if you'll pardon the term—has produced a number of offspring—namely, a variety of third party enterprises such as Medicare, Workmen's Compensation, Vocational Rehabilitation, Public Assistance, school health, medical research, the Veterans Administration, and many others.

I don't advise marriage, as such. But I would suggest that unless we can afford to have more of these illegitimate offspring, we should get some of our physicians into the political family where we'll have more voice in the family planning. I think we're old enough for this sort of arrangement.

While speaking of politically conceived medical care, I'm compelled to mention public health work. I firmly believe in the theory and practice of true public health work, such as preventive medicine and the control of contagious diseases, and the like. But in recent years most of our county health departments have developed into the so-called third parties. They're practicing medicine which is in no way connected with the true function of public health departments. I know this has been true in my own county for a long, long time—even before Mr. Kennedy was born.

Doctors in Politics

I see no alternative. Doctors must enter

politics in a wholehearted way if they hope to preserve the free practice of medicine and free enterprise.

Many of our physicians who object to Blue Shield, Medicare, or any third party which fixes fees must realize that there has been a slow socialization of medicine dating at least 30 years. There is very little we can do now but fight to prevent further progress of the Social Security program. Our only alternative is to enter the political field.

I think that physicians can learn a moral lesson from the jet age. It seems that you can go farther and faster with push than with pull. Doctors should be on the inside of politics, pushing, instead of on the outside, pulling.

If you've been reading the congressional roundups in recent weeks, you know that President Kennedy was queried at a recent news conference about his plan to participate in the New York rally of aged citizens later this month. A newsman asked if the May rally is to be "an all-out administration effort to obtain a vote on the Social Security plan of medical care for the aged in this session of Congress."

The President replied, "That is correct."

He was then asked, "So it isn't true that the administration leaders will hold off another year?"

"No," the President answered. "This will come to a vote, in my opinion, definitely in the United States Senate and, I am hopeful in the House, before the end of this session."

Need we say more? The problem is apparent.

Informing the Folks Back Home

It seems that Mr. Kennedy, Mr. Ribicoff, Mr. Cohn, Mr. Meany, Mr. Reuther, and Mr. Hoffa are dictating policies of medical care, and that the administration is carrying out these plans blindly.

Our biggest job is in Congress, because that is where the votes are cast. But we mustn't forget that there's a job to be done at home, where pressure is to be applied at the grass roots.

Whether you like or dislike the pollsters, they're in business, and newspapers still

buy their findings and spread them all over the country.

The Gallup poll, as you probably noted in your local newspapers, boldly announced in early April that a majority of U. S. citizens support the President's plan to provide medical care for the aged under the Social Security program. We're running a close race, however. Mr. Gallup acknowledged that the people in favor of a *private* approach make up "a sizeable minority."

Social Security Is Not Cheap

People who supported the Social Security approach felt that it would be less expensive than voluntary private insurance. They felt, too, that it would force people to put aside funds to take care of their medical needs in old age, despite the known fact that "insurance" does not characterize Social Security, which guarantees nothing.

These expressions from the people who were polled give a clue to some of the things we must tell our folks back home. We've got to convince them that the Social Security approach won't be cheap. I don't think we shed much light on the subject when we say that the Social Security plan will probably cost 1.2 billion dollars the first year. People don't understand astronomical figures any more.

My information is that under no circumstances should a Social Security deduction ever exceed 10 per cent—even if this amount is only going to cover 25 per cent of an aged patient's medical-hospital bill. Suppose, then, that the Social Security plan of medical care becomes effective next January 1 as proposed. Suppose the total Social Security deduction is boosted to 10 per cent, and is to be paid on an income of \$5,200 rather than the present \$4,800 maximum. If you have a patient making \$5,200 a year, it appears that the expanded program will cost him \$10.00 a week and his employer an equal amount. At least one-tenth of his annual production will go to Social Security. (I can't vouch for the accuracy of my arithmetic, and I'd suggest that you do your own calculating if you consider mentioning such figures to your patients.)

Statisticians are predicting that the aver-



Claude B. Squires, M.D.

age worker 50 years from now will make well over \$10,000 a year. At the rate we're getting ready to spend, he'd better.

Doctors of Medicine—Past and Present

The doctor of years gone by is remembered as the untiring, compassionate general practitioner who was available wherever and whenever he was needed. It wasn't his fault—nor was he blamed for the fact—that he was on better speaking terms with *suffering* and *death* than with *health*. He was counselor and adviser on non-medical subjects ranging from love and morals to politics and religion.

I needn't remind you that the science and the practice of medicine have changed, but the patient still seeks, in this changed situation, a combination of warm understanding, the latest medical knowledge, and the growing application of specific remedies and controls.

There are many explanations—and excuses—for the so-called "doctor image" of today, devoid of warm understanding. A professor of psychology offers this theory, based on his personal observations of medical students:

"Essentially, our medical students are persons who, were they not becoming physicians, would be planning to become manufacturers, big business men, production managers, and engineers. They aren't the kind of people who would become teachers, ministers, social workers, or other professional persons interested in doing something for the good of mankind.

"As a group, the medical students reveal remarkably little interest in the welfare of human beings.

"All of the evidence available to us leads to the conclusion that the typical young physician has little interest in cultural aspects of the society in which he lives, has very little sensitivity to or feeling for the needs of the community, and is generally not inclined to participate in community activities unless these contribute to his income.

"As I see it today, medical practice, as characterized by the people going into it, is the stronghold of individual economic competition, a stage through which big industry has passed already.

"It is my impression that the typical young executive in big industry today has a far greater sense of community needs and sensitivity to his role in helping society solve its problems than

does the young physician who is still essentially an entrepreneur."

A recent survey at one of our leading universities attempted to find out why certain undergraduates who initially intended to study medicine failed to continue in medical school. In addition to the usual financial and scholastic difficulties, it was found that a large group turned away from medicine of their own choice. Two of the reasons given most commonly were: (1) Medicine is a second-class science; and (2) doctors aren't the humanitarians they once were.

The results of this survey suggest to me that in developing our scientific knowledge, we've thoroughly forgotten the art of practicing medicine.

Recently I read the Whitehead Lecture given for the year 1961-1962, at the University of North Carolina, by Dr. Thomas B. Barnett. A portion of the lecture of special interest to me included these statements:

"I am happy to report that the illogical argument that medical science is incompatible with humane medical practice seems to have lost some of its appeal and popularity. Let us not conclude, however, that the two—medical science and the art of medicine—are two separate and unrelated aspects of our professional activities. Fifty years ago Dr. Theodore Janeway pointed out that the 'science of disease is the sure basis for the successful practice of the art of medicine.' How much more true this is today!

"There is no reason why a doctor who understands the mechanisms of disease cannot at the same time be an understanding doctor nor why a thinking doctor cannot at the same time be thoughtful. Indeed, what more effective way to deal with the human reactions to disease than to be armed with knowledge of the disease itself? Uncertainty and indecisiveness are among the hardest burdens a sick person must bear. What better equipment for these difficult tasks than to understand the scientific basis for disturbed human behavior?"

I have visited medical centers in our state, and I have found many of our teachers of medicine to be kind and courteous and friendly toward their hospital patients. But

they talk to them very little about what the patient is most interested in—his physical condition, his treatment, and his prospects for the future.

The medical profession today is under great stress, and it shows signs of tension and anxiety. I share the opinion of the California physician who took note of the symptoms recently and said that the medical profession must oppose government regulations and controls, but at the same time must find a better answer.

"The issue will be resolved," he suggested, "not by any public relations smoke screen, but by the integrity and effectiveness of medicine's performance in finding a better answer. We must offer a better medicine than government medicine, and we must make it readily available."

Certain British physicians have patients beat a path to their door in retreat from the sorry state of the government health service.

A Word of Appreciation

Before concluding, I am compelled to take note of the hard work I've observed in the State Society during my year as president.

The tremendous burden placed on us by national as well as local events calls for a prodigious amount of work by the executive secretary, the director of public relations, and the entire staff of the headquarters office. The demands have been terrific, and we should compliment our entire executive organization for its excellent work, not only in the past year, but in previous years. Mr. Barnes, the executive secretary, and Mr. Hilliard, the director of public relations, are constantly on the go and alert to events in Washington and Raleigh, as well as to other matters pertaining to medicine in our own state.

I know of no other organization where so many have given so much time, effort, and money for the cause of medicine in North Carolina. We do not like to mention names, but we feel it necessary to bring to your attention certain groups who have done outstanding work for the Medical Society in the past year. The Blue Shield depu-

tation to the National Blue Shield organization, composed of Drs. Theodore S. Raiford, Jacob H. Shuford, and Edgar T. Beddingfield, pursued their work with great interest and vigor. They appeared before the National Blue Shield Committee in behalf of the Hospital Care Association in Chicago last fall. Dr. Raiford has further pursued the idea of consolidating Hospital Care and the Hospital Saving Association in North Carolina, and continues to work almost every day toward that end.

The Insurance Industry Liaison Committee, with Dr. Frank W. Jones of Newton as chairman, has done a tremendous amount of work. The Committee to Study Integration of Negro Physicians has also been extremely active. The Committee on Public Relations has performed, in a marvelous way, its task of keeping you informed as to the activities of the Society. The Committee on Mental Health, headed by Dr. A. B. Choate, has also been quite active. The Committee on Legislation has appeared before congressional committees and state bodies, and has been alert to follow medical legislation in the state. Dr. Hubert Poteat performed a wonderful service in appearing before a congressional committee and also before legislative groups in Raleigh.

The Committee on Insurance and the committee to work with the North Carolina Industrial Commission has likewise labored diligently. Dr. George T. Noel, chairman of the Committee on Eye Care and the Eye Bank, and his co-workers have been active throughout the year. Dr. Wayne Benton and the Committee on Finance have been faithful in managing our fiscal assets. The Committee on Chronic Illness and Care of the Aged, headed by Dr. John Robert Kernodle, has also accomplished a vast amount of work. The Blue Shield Committee has worked constantly in an effort to prepare a better program for the doctors of North Carolina. It would be difficult to mention all the several hundred doctors who have worked actively for the State Medical Society this year, but I greatly appreciate everything they have done.

Our Program Committee, headed by Dr. Brinkhous, has labored consistently all year

in shaping the plans for these sessions. The results of their productive efforts are apparent in the fine program which has been under way since yesterday.

Conclusion

Let us never forget that the American people are entitled to the best medical service that science and art permit, and that the people can afford. They are entitled to get it

at the lowest price consistent with high quality—or it must be given to those who can't pay.

Are they getting their medical services on these terms now? If you agree that they're not, it is your public duty to join with your fellow physicians in seeking ways to improve the situation. And you must be willing to work with other forces in your community to reach that goal.

Dissecting Aortic Aneurysm

HUGO L. DEATON, M.D.
W. GLENN YOUNG, JR., M.D.
W. C. SEALY, M.D.
and
WILLIAM F. BARRY, JR., M.D.
DURHAM

It was not long ago that the diagnosis of dissecting aortic aneurysm was of little more than academic interest because of the lack of a successful method of treatment. Although this lesion is uncommon, the advent of an effective surgical approach to it has made its accurate diagnosis a matter of vital importance. In order to point out the most helpful diagnostic findings, and also to indicate the degree of success in treating this lesion at the present time, 31 cases of dissecting aortic aneurysm seen at the Duke University Medical Center during the past 25 years are reviewed. Only those cases in which the diagnosis was proven anatomically, either at autopsy or during surgery, are included.

Clinical Findings

Of the 31 cases presented here, 27 occurred in the past 11 years, and 20 of these 27 were seen in the past six years, indicating to what extent increased awareness of the lesion has increased the frequency of diagnosis. These aneurysms were either thoracic or thoraco-abdominal in 29 cases, and exclusively abdominal in only 2. The age range was from 31 through 86 years, with the

From the Division of Thoracic Surgery and the Department of Radiology, Duke University Medical Center, Durham, North Carolina.

Table 1
Race and Sex Distribution

	Male	Female	Total
White	8	2	10
Negro	10	11	21

greatest frequency between the ages of 41 and 60 (fig. 1). The race and sex distribution is shown in table 1. It is of interest that 21 of 31 cases were in Negroes, whereas the Negro admission rate to the hospital is about 35.6 per cent of the total admissions.

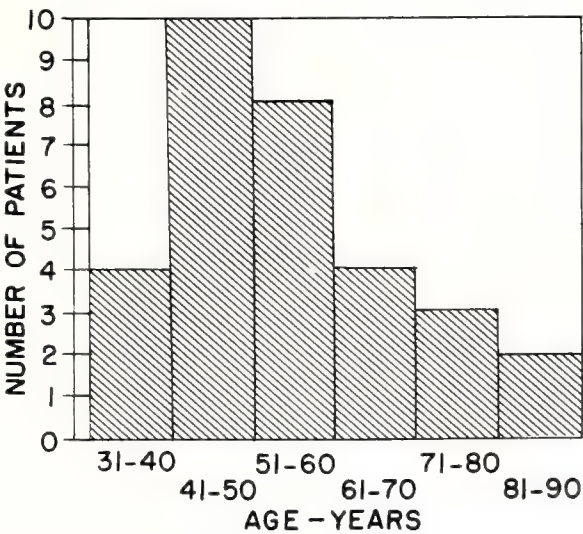


Fig. 1. Age incidence of dissecting aneurysm of the aorta.

Table 2
Incidence of Symptoms
(31 patients)

Symptoms	No. Patients
Pain	29
Typical	23
Atypical	6
Dyspnea	10
Fever	5
Nausea and vomiting	5
Cough	3
Headache	3
Syncope	3
Hemiplegia	3
Paraplegia	3
Mental confusion	2

Table 3
Incidence of Signs
(31 patients)

Signs	No. Patients
Hypertension	27
Heart murmur	16
Cardiomegaly	11
Atelectasis	6
Pulsating mass	4
Congestive heart failure	3
Change in peripheral pulses	3
Absent peripheral pulses (other than pedal)	3
Ischemia of extremities	3
Shock	3

Symptoms and Signs

The most common symptom was pain—typically sudden, severe, and sometimes of a tearing or ripping nature. It radiated to the back, epigastrium or flanks, but seldom involved the arms. In the cases of abdominal dissection, pain in the lower part of the back with radiation into the legs was the usual pattern. Only 2 patients had no pain.

Respiratory symptoms, nausea and vomiting, and a variety of neurologic symptoms were also fairly common. A past history of hypertension was almost uniformly present.

On physical examination only the non-specific signs of hypertension, systolic heart murmur, and cardiomegaly were present with any degree of frequency. The so-called classic signs, such as changing peripheral pulses, pulsating mass, and peripheral ischemia were seen only occasionally (see table 3). Though shock was present in only 3 cases at the time of admission, severe and sudden prostration was commonly a part of the history. The symptoms and signs encountered and their frequency are summarized in tables 2 and 3.

Roentgenography

Radiographic examination, especially when the thoracic aorta was involved, was quite helpful in making the diagnosis. The radiologic changes of dissecting aneurysm have been reviewed recently by Sutton¹.

The most consistent finding in the routine chest roentgenogram is widening of the mediastinal aorta. This change is particularly valuable in diagnosis if a previous

base line film is available for comparison (fig. 1). A change in the contour of the visible aortic shadow is highly suggestive, especially when it is a recent development. A wavy, irregular or scalloped margin is also significant. A soft tissue density beyond a calcified plaque may give information as to the thickness of the aortic wall.

Another radiologic sign which became apparent as we reviewed this series is fuzziness or loss of definition of the aortic shadow. We have not been able to correlate this change with extraluminal hemorrhage and believe it to be merely a manifestation of soft tissue reaction or edema around the adventitia of the aorta.

Angiographically, the double channel or an increased thickness of the aortic wall is an important finding in establishing the diagnosis of dissecting aneurysm (fig. 2). The double shadow must be interpreted cautiously inasmuch as it appears in some instances as the result of aortic movement rather than a true double lumen. In 3 cases the angiogram led to a false-positive diagnosis.

In this limited series we found that the diagnosis of dissecting aortic aneurysm could be made or strongly suspected on the basis of plain roentgenograms as frequently as on the basis of angiograms. Angiograms, which were carried out in only 7 patients of the present series, were more helpful than plain films in identifying the extent of dissection, and probably should be obtained in all suspected cases.

The white blood cell count was 12,000 or greater in 9 patients. The hemoglobin was



Fig. 2. Widening of the mediastinum on the 1960 chest film is unmistakable when compared with the one obtained in 1956.

less than 12.0 Gm. in 12 patients. Urinalysis revealed proteinuria of 1 plus or more in 12 of 27 patients in whom urinalysis was done. Of 18 patients who had electrocardiograms, 9 showed left ventricular strain. Four patients had cardiograms interpreted as showing questionable infarctions. No cardiograms were interpreted as consistent with definite infarction.

Diagnosis

From the foregoing it is evident that there is no single finding or group of findings that can be considered pathognomonic of dissecting aortic aneurysm. There are a number of typical findings, however, and when several of these coincide, the diagnosis often can be made easily, provided the possibility of dissection is kept in mind. These are as follows: (1) pain, usually in the chest, of sudden, severe onset; (2) pain of tearing or ripping character; (3) pain of prolonged duration and wide radiation; (4) prostration accompanying the onset of symptoms; (5) dyspnea or other respiratory symptoms; (6) a history of long stand-



Fig. 3. A double aortic shadow is clearly visible on this venous angiogram.

ing and often severe hypertension; (7) evidence of neurologic deficit or ischemia in one or more extremities; (8) chest films showing widening or change in contour of the mediastinal aorta as well as a variety of changes in the edges of the aortic shadow; (9) angiograms showing a double lumen or thickened aortic wall; (10) proteinuria, and (11) electrocardiographic evidence of left

Table 4
Survival Without Surgery

Time	No. Patients
Less than 24 hours	8
1 to 7 days	8
8 to 30 days	2
More than 30 days	2
Total	20

ventricular strain or hypertrophy. We have made a false diagnosis of dissecting aneurysm in 4 cases which later proved to be pericarditis in two instances, malignancy involving the mediastinum in one instance, and myocardial infarction in one instance.

Pathology

Dissecting aneurysm was first clearly recognized by Mournoir in 1802, and the pathologic picture has been most extensively described by Shennon². Anatomically, the lesion consists of an outer aortic wall of adventitia and a portion of the media, and an inner aortic wall consisting of the remainder of the medial layer and the intima. Between these two divisions lies a false lumen containing circulating blood and clot. The true lumen of the vessel may be small or large, depending upon how much it is compressed by the false lumen. Aneurysmal dilation of the over-all diameter of the vessel varies, but usually is not great compared to that of fusiform or saccular aneurysms. Branches of the aorta may be embarrassed or completely occluded as a result of compression of the lumina by an enlarging dissection; or they may be completely sheared off and thrombosed as the dissection extends along the aorta. Glendy and others³ have stated that dissection usually begins 1 to 2 cm. from the root of the aorta as a transverse tear of the intima. This was the case nine times in this series. In one case it appeared that the dissection may have begun as the result of rupture of one of the *vasa vasorum* in the aortic wall and extravasation of blood along the media of the vessel. In 7 cases the site of origin could not be located at autopsy. In 9 it was in the aortic arch, and in 6 it was in the descending aorta.

Cystic medionecrosis, first described by Erdheim⁴, was the basic lesion which accounted for dissection in the majority of

Table 5
Cause of Death

Cause	No. Patients
Rupture into pericardium	7
Rupture into pleural cavity	3
Rupture into mediastinum	7
Rupture site not specified	4
Cerebral vascular accident	3
*Uremia	3
*Cardiac arrest	2
†Respiratory failure	1
†Malignant hypertension	1

*These patients were postoperative

†Late deaths, unrelated to dissection

cases. It was identified in 19 instances. In 6 cases arteriosclerosis of the aorta was the only pathologic condition present to explain the dissection, and in one case the dissection was associated with syphilitic aortitis. In 5 cases the etiology is unknown.

Clinical Course

The natural course of dissecting aneurysm is usually a rapidly fatal one. The dissection either ruptures into one of the body cavities and causes death by exsanguination or cardiac tamponade; or the dissecting process produces ischemia of some vital area such as the heart, brain, or kidneys, which in turn results in death. Occasionally the dissection ruptures back into the true lumen of the aorta, the process ceases, and the patient survives. This latter course of events happened only twice among the 20 patients in this series who did not undergo surgery. The other 18 patients died within 30 days of admission to the hospital, 16 of them within seven days. The causes of death and survival times are summarized in tables 4 and 5. Of interest is the fact that cardiac tamponade was present in over a third of the nonoperative fatal cases.

Treatment

With the prospect of 90 per cent mortality within 30 days for patients with dissecting aneurysm on a regimen of only bed rest and treatment of hypertension, any attempt at surgical intervention can carry a high mortality rate and still be an improvement over non-intervention. Gurin⁵, in 1935, was the first to attack the dissecting aortic aneurysm surgically. He operated to relieve

the pulseless ischemic leg of a patient with aorto-iliac dissection. Upon opening the iliac artery anteriorly, he found the lumen compressed and obstructed by the dissection within the posterior wall. By removing a window from the inner wall of the dissection through the opening in the artery, he created a site of re-entry for blood flowing in the false lumen. When he momentarily released the proximal clamp on the iliac artery, blood spurted through this window. When the arteriotomy was closed and the occluding clamps were removed, pulsatile flow was restored to the extremity.

Gurin's operation created a site of entry for blood flowing in the false lumen to return to the true lumen, much the same as in the cases of spontaneous re-entry which survive. Although his patient died six days later of uremia, he showed that fenestration of the false lumen, shunting the blood within it back into the true lumen, is a valid principle in the treatment of the dissecting vessel.

Today the only successful treatment of this lesion is surgical. DeBakey⁶ has described the various available techniques. One method is to transect the dissecting vessel, suture the true and false lumina together distally to stop progression of the dissection, excise a window of the inner wall proximally, and restore continuity of the vessel. This procedure came into general use after Shaw⁷ described it in 1955 and is applicable when the point of entry is quite proximal and the dissection extends into the descending aorta.

The second type of procedure is to resect the entire dissection and replace the vessel with a prosthesis. Resection has the theoretical advantage of removing the proximal end of the dissection and preventing possible progression toward the root of the aorta. This is feasible usually when the dissection begins distal to the left subclavian artery and extends only a short distance. Sometimes a combination of the two methods may be useful.

In this group of 31 cases, 11 were treated surgically. Each represented acute aortic dissection with associated pain immediately before operation. One early case was treat-

ed by ligation of the aorta below the renal arteries, 3 by resection and grafting, and 7 by fenestration. Six of the 11 patients (55 per cent) survived. Of the 10 who underwent resection or fenestration, 6 (60 per cent) survived. Of the 5 who died, 2 had cardiac arrest on the operating table—associated with clamping of the aorta in one, and with massive hemorrhage due to inability of the aorta to hold sutures in the other. The other three deaths occurred in the early postoperative period and were all due to anuria and uremia. Although the longest follow-up period is only two and one-half years, it is gratifying that the 6 surviving patients have continued to do well.

With the use of hypothermia and the availability of extra-corporeal circulation on an emergency basis, it has become possible to protect the kidneys as well as the other vital organs to a greater degree. The pump-oxygenator also is valuable in extending the variety of dissecting aneurysms that can be successfully treated surgically.

Summary

A review of 31 proven cases of dissecting aortic aneurysm treated at the Duke University Medical Center is presented. The clinical findings that were most helpful in making the diagnosis are emphasized. The encouraging results of surgical treatment in recent years make the antemortem diagnosis of this lesion a matter of great practical importance.

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Panel Discussion on Obstetric Hemorrhage

Introduction

H. FLEMING FULLER, M.D.

KINSTON

Hemorrhage is a continuing and sinister threat to the pregnant woman, and is dreaded by the *accoucheur*, be he specialist or general practitioner. During the past 20 years we have seen a commendable reduction in maternal mortality through the nation, especially in our own state. Better prenatal care has reduced morbidity and mortality in toxemia, while the use of antibiotics and better aseptic techniques has caused a reduction in the toll taken by infection. We regret to find no proportionate decrease in the morbidity and mortality associated with hemorrhage.

A review of maternal mortality statistics

throughout our country shows hemorrhage or its sequelae to be the cause of death in from 21 to 46 per cent of all maternal deaths. Many deaths are attributed to shock from acute blood loss. Damage to the adenohypophysis and the kidneys may be later consequences of hemorrhage, and even though death may be delayed for weeks or months, these cases fall into the hemorrhagic group.

In view of the importance of this subject to us, the panelists have been asked to prepare papers dealing with what we consider to be the most important facets of obstetric hemorrhage.*

Perinatal Mortality in Association with Obstetric Hemorrhage

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RALEIGH

Hemorrhagic complications of pregnancy not only carry a serious maternal risk, but also result in a high perinatal mortality. This is clearly reflected by the accompanying two tables. The data for these tables were taken from the North Carolina Fetal and Neonatal Mortality Study for the years 1954 through 1959. It covers a total of 34,254 deliveries in the six hospitals studied.

Table 1 indicates the incidence of each of the listed complications as found in the three major study groups and in the control group. For instance, partial premature separation of the placenta was present in 11.8 per cent of the fetal deaths and 9.5 per cent of the neonatal deaths in the study. On the

other hand, it was present in only 0.7 per cent of the controls.

It is interesting to note that 30 per cent of the fetal deaths and 22 per cent of the neonatal deaths were associated with a bleeding complication of pregnancy. The category "other premature births" includes all the premature births in these hospitals which did not result in a perinatal death or were not included in the control system. With the exception of threatened abortion, all the hemorrhage complications appeared to be significantly related to prematurity even when the premature infant survived.

The second table simply shows the numerical frequency with which these complications occurred in the three study categories as opposed to the control. If the control is pegged at 1, partial premature separation of the placenta occurred six times as often among "other premature" infants, 17 more

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*A third paper originally included in the discussion had not been received by the editorial office at the time of publication.

Table 1
Incidence of Obstetric Complications Relative to Fetal Outcome in 34,254 Deliveries
North Carolina Perinatal Mortality Study, 1954-1959

	Fetal	Neonatal	Perinatal	Controls	Other Premature Births
Premature separation of the placenta					
Partial	11.8	9.5	10.6	0.7	4.2
Complete	9.2	1.0	5.0	0.03	0.3
Placenta previa					
Partial	1.5	1.8	1.6	0.1	1.3
Total	0.5	1.0	0.8	0.1	0.5
Ruptured marginal sinus	2.5	3.1	2.8	0.4	1.8
Threatened abortion	4.7	5.6	5.1	1.0	1.0
	22.0	25.9	2.33	9.1	

Table 2
Frequency of Certain Obstetric Complications Among 34,245 Deliveries Relative to Fetal Outcome
North Carolina Perinatal Mortality Study, 1954-1959

	Fetal	Neonatal	Perinatal	Controls	Other Premature Births
Premature separation of the placenta					
Partial	17	13	15	1	6
Total	306	33	167	1	10
Placenta previa					
Partial	15	18	16	1	13
Total	5	10	8	1	5
Ruptured marginal sinus	6	7	7	1	4
Threatened abortion	5	6	5	1	1

often in the fetal death group, and 13 times more often in the neonatal death group.

One can only conclude from these figures that perinatal mortality and prematurity as a result of the hemorrhagic complications of pregnancy is extremely high and numerically of greater significance than the dangers to

the mother. If one postulates a relationship between perinatal mortality and infant morbidity—that is, cerebral palsy, mental retardation, and other birth injuries—then the resultant neurologic deficits associated with these complications must indeed be formidable.

* * *

The Role of the Blood Bank in Obstetric Hemorrhage

ROBERT W. PRICHARD, M.D.

WINSTON-SALEM

This paper deals with what the blood bank could and should do in obstetric hemorrhage in North Carolina. The geographic reference is made because this treatment of the problem is not intended to be the counsel of perfection. It is an attempt to use the information compiled by our fine Maternal Care Commission to state our problem and to do the greatest good for the greatest number on that basis. Simply put, the blood bank is the keystone of efforts to keep the patient alive until definite treatment is carried out.

Between 1951 and 1960 there were 1588 maternal deaths recorded with the Maternal Care Commission. Of these, 370 were classified as death due to hemorrhage. Only 52 per cent of these women received blood in any amount, and less than 3 per cent (8 patients) got an adequate amount. There is no need to embroider these facts with statements emphasizing their tragic aspects; every death in the group was preventable.

It would be only partially true to blame this situation on a lack of blood at the time of delivery. The only thing that would have saved many of these patients was good prenatal and intrapartum care, which would have made it possible to anticipate hemorrhage and get the patient to a place where adequate blood supplies were available. The matters of prenatal care, and conditions predisposing to hemorrhage such as twin births and uterine inertia, I leave to my obstetric colleagues; those interested in blood-banking recognize the primacy of the clinician in the over-all management of obstetric bleeding.

For all practical purposes the clinician should consider obstetric bleeding as the result of obstetric disease. The coagulation de-

fects responsible for obstetric bleeding are very rare, and should not distract him. All too often some unusual condition such as the currently popular hypofibrinogenemia receives more attention than an atonic uterus. It is well to draw 5-10 ml. of blood from a vein and to put it in a serologic test tube where it can be observed by some responsible person to see if it clots within 10 minutes, and once clotted, whether or not the clot then dissolves. However, this should be a very minor part of the physician's effort to diagnose the cause of the patient's bleeding.

Importance of Adequate Blood Stores

Obstetric bleeders lose whole blood, and require whole blood to replace these losses. All blood banks should keep on hand at least 2 units of Group O Rh negative blood which has been screened to make certain that its plasma has a low titer of anti-A and anti-B agglutinins. I do not recommend the use of group-specific substances to "neutralize" these agglutinins. When the physician's clinical judgment indicates that the need for blood is *desperate*, administration of these 2 units of blood can be started while the necessary laboratory work is being done to prepare properly matched blood in large amounts. Only desperation should lead to giving blood without cross-matching, but the risk of giving blood is far less than that from hemorrhage in such a situation.

The principal reason for hemorrhagic obstetric deaths is failure to use an adequate amount of blood. There is good reason to think that there is no such thing as irreversible shock in the human being. If blood volume is restored and maintained, shock will neither develop nor persist. One should replace at least 40 per cent of the blood lost within an hour after bleeding begins, followed by replacement of the remainder, if death is to be avoided. To delay transfusion beyond 45 minutes is almost always fatal

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in massive hemorrhage¹. Death from over-transfusion in situations of acute blood loss is very unusual. It was not encountered in the North Carolina series of maternal deaths.

Evaluation of blood loss

The problem of estimating blood loss remains a difficult one, and most errors are those of underestimation. Normal people can lose 15-20 per cent of their blood volume without much effect on their general well-being. When 30 per cent of the blood volume is lost, the pulse rate goes up and a drop in blood pressure of 30 mm. or more commonly occurs. When 50 per cent of the blood volume has gone, the radial pulse is not felt, blood pressure is unobtainable, and mental confusion develops. These commonly recognized clinical signs are useful and important, and should be considered with direct observation and measurement of the amount of blood lost. Blood spattered up onto the ankles was considered a reliable sign of major obstetric blood loss by Dr. John Parks, who taught me what little obstetrics I know. Measurements of blood volume are not done often enough to warrant mention; this is regrettable, but a fact.

Recently anesthesiologists have shown a renewed interest in the hematocrit as an indirect indicator of blood volume². Most of us were told in medical school that the hematocrit does not adjust to blood loss fast enough to be of use in managing hemorrhage. As you know, however, relatively inexpensive small centrifuges are now available which will spin capillary tubes filled from finger or ear lobe punctures. Several groups have been using this technique to follow blood loss during surgery, and find it a sensitive and quickly responsive way to keep track of transfusion adequacy. Since the micro-hematocrit is very simple to perform and does not cost much, this procedure merits your consideration.

Transfusion Techniques

Based on the above observations and measurements, blood should be given with due speed in amounts sufficient to restore the pulse and blood pressure to near the

patient's usual range. It is assumed that whatever obstetric procedures are necessary will be carried out concurrently. The use of large needles (18 gauge) in one or two veins will facilitate rapid transfusion. Whether the blood is given from glass or plastic equipment is not in the scope of this discussion. It is easier and safer to give pressure transfusions from plastic bags, although it is also possible from glass bottles. In our hospital pressure infusions are given by attaching a 10 ml. syringe to the needle through a three-way stopcock.

Whole blood is the principal agent to be used in obstetric hemorrhage. Rarely is anything else indicated. Plasma volume expanders are of very limited value, since they cannot supply oxygen to the tissues. Low-titer O negative blood should be used when bleeding is massive and time is too short for proper cross-matching. If one is forced to use a plasma expander while waiting for blood to be cross-matched, the substance of choice is Type AB Rh negative plasma stored at 30-32 C. (86-89 F.) for 6-24 months. Dextran is said to have a fibrinogen-depleting effect, and other substances are less desirable for various reasons.

Fibrinogen Deficiency

Fibrinogen deficiency has received much attention during the last 10 years³. If one has eliminated local obstetric complications as a cause of bleeding and finds fibrinogen deficiency by the use of the clot inspection test or some other screening method ("Fibrindex"—Ortho Pharmaceutical Company or "FI Test"—Hyland Laboratories), one is justified in giving fibrinogen. When that decision is made, at least 2 units—4 to 5 Gm.—should be given, followed by 2 additional units if bleeding does not stop within an hour.

In the North Carolina series of maternal deaths there were 6 patients who received fibrinogen. Two of these patients were found to have a low fibrinogen level by a screening method. One received 16 units of fibrinogen, as well as 48 units of blood, but died as a hysterectomy was being done. At autopsy she had a tear in the lower uterine segment, which communicated with a large

retroperitoneal hematoma. The second patient's blood did not clot after 30 minutes, and a messenger was sent for 4 Gm. of fibrinogen. By the time it arrived the bleeding had stopped, but shock persisted and the patient died. One can see from this account that fibrinogen lack is rare, and in the North Carolina experience there is no case recorded in which death was clearly due to hypofibrinogenemia.

Blood Procurement Systems

A matter of prime concern in the use of whole blood is having access to a sufficient supply. Our state is a patchwork of various types of blood procurement. There are two Red Cross blood centers in the state, in Charlotte and Asheville. The Norfolk and Roanoke, Virginia, centers are close to some of our counties. Commercial blood banks in other states supply a few of our hospitals. There are many small blood banks consisting of a refrigerator in a laboratory area, supplied either by the Red Cross, commerce or local donations. The "walking blood bank"—readily available typed donors—is a minimum. Each community must seek its own solution to the problem of an adequate blood supply, and it is a problem which does not have any simple answer.

Within the last 18 months a voluntary, private organization of blood banks has been established in North Carolina, with the support of this medical society as well as other groups. Its objective is to improve blood banking in North Carolina so that in our far-flung, largely rural state more blood of better quality can be made available to more people. I emphasize the voluntary nature of this organization; aside from its objectives it has no axe to grind and no authority in any case. Its officers and committees serve without pay. The organization plans to provide inspectors who will visit blood banks, inspect their operation, and offer recommendations based upon nationally recognized standards. If the service is

satisfactory, or makes itself so, there would likely be a measure of legal validity in the exchange of blood between inspected banks within the state, since malpractice is usually judged on the basis of whether or not an act is contrary to generally accepted practice in the locality concerned.

The North Carolina Association of Blood Banks can do a great deal to improve the situation here outlined, and I suggest that it deserves your support. To date very few hospitals have participated, although all have been invited. On the basis of our present deplorable situation in respect to getting adequate amounts of blood to bleeding obstetric patients, it seems that reluctance should give way to support of this "grass-roots" movement to pull ourselves up by our bootstraps.

Summary

1. Over a 10-year period only half of the 370 North Carolina obstetric patients dead of hemorrhage got any blood, and less than 3 per cent got an adequate amount.
2. Whole blood, given rapidly and in adequate volume, is the substance of choice in obstetric hemorrhage. Plasma expanders and fibrinogen have a very minor place in such treatment.
3. Aside from the prime matter of anticipating hemorrhage by recognizing the common conditions, blood must be widely available to our population if North Carolina obstetric hemorrhage deaths are to be reduced. The North Carolina Association of Blood Banks, a voluntary private organization, is a potential source of help in making more blood available and should be supported by the profession.

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Postpartum Hemorrhage

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The term postpartum hemorrhage strictly refers to bleeding immediately after delivery of the infant or of the placenta. In this discussion, however, it will be used to apply to excessive bleeding at any time during the interval between delivery and the end of the puerperium. Bleeding in excess of 500 cc. at the time of delivery is defined as immediate hemorrhage. Hemorrhage subsequent to the first 24 hours is defined as delayed hemorrhage.

Causes

The causes of postpartum hemorrhage are listed as follows:

A. Immediate

1. Uterine atony
2. Lacerations of the cervix
3. Retained placenta or placental fragments
4. Ruptured uterus
5. Blood-clotting defects
6. Paravaginal or extraperitoneal hematoma
7. Inversion of the uterus
8. Rupture of utero-ovarian vein

B. Delayed

1. Retention of placental fragment
2. Subinvolution of the placental site
3. Estrogen withdrawal
4. Abnormalities in separation of the decidua vera
5. Rupture of utero-ovarian vein
6. Partial inversion of the uterus
7. Bleeding from large subendometrial blood vessels

Prevention

In a well run clinic the incidence of postpartum hemorrhage is about 3 or 4 per cent. For this reason, certain physical facilities must be provided to combat the complication effectively. A blood bank is a necessity: not a list of ambulatory donors, but a bank stocked with all types of blood in sufficient quantity. An auxiliary obstetric blood bank located on the delivery floor is also useful.

A small refrigerator capable of maintaining a temperature between 4 and 6 degrees C. is adequate to keep 2 units of 0 negative and 2 units of 0 positive blood, to each of which has been added Witebsky substances. Human plasma fibrinogen can also be stored in this unit.

A recovery room for postpartum patients should be maintained. Close observation should be continued for at least one hour following normal deliveries, and longer following a complicated one. This responsibility should not be delegated to a nurse who has other duties.

Although many factors may predispose a patient to postpartum hemorrhage, there is yet no way of predicting with any degree of certainty who will bleed after delivery. Preparation for this complication, therefore, should begin at the very first prenatal visit. Any history of previous bleeding is elicited. Previous operations such as cesarean section or myomectomy are noted. A history of diabetes in the patient or her immediate family may alert us.

Physical examination may reveal the presence of a uterine tumor or other abnormalities. The hemoglobin and blood type are determined, and a complete urinalysis is done. Supplementary iron is prescribed, and the patient is instructed in good dietary practices in order to insure an optimal nutritional state throughout pregnancy and the puerperium.

At the time of delivery, a few basic axioms should be considered. Delivery of the baby should be unhurried, allowing time for the uterus to accommodate gradually to the decreasing capacity. Delivery of the placenta should not be attempted until the uterus has changed from a discoid to a globoid shape, when with gentle cord traction and gentle abdominal pressure delivery should be easily successful. There is no place for vigorous cord traction or the Crede maneuver. The fetal and placental surfaces should be inspected to rule out a retained

cotyledon or a succenturiate lobe. In all cases of doubt, or where there is a better than average possibility of hemorrhage, vaginal and intrauterine inspection should be carried out.

Predisposing Factors

It is generally agreed that factors producing overdistention of the uterus predispose the patient to postpartum hemorrhage by causing postpartum uterine atony. Such factors are large babies (often associated with diabetes mellitus), polyhydramnios, and multiparity. Other predisposing factors include premature delivery, often associated with some degree of placental retention. Prolonged labor and grand multiparity are often followed by ineffectual uterine contractions *post partum*, and therefore by uterine atony and hemorrhage. Primary uterine inertia during labor seems to be associated with the same ineffectual postpartum uterine contractions.

The production of hypofibrinogenemia or afibrinogenemia after abruptio placenta, prolonged retention of a dead fetus *in utero*, amniotic fluid infusion, and incompatible blood transfusions is documented. Cervical and vaginal lacerations often follow vaginal procedures associated with abnormal presentation, placenta previa, and precipitous labor. Delivery of large infants is also associated with such lacerations.

The possibility or rupture of the uterus should be considered after vaginal operations, version and extraction, vaginal delivery following a previous cesarean section or myomectomy, and after Pitocin-induced labor. Retroperitoneal and paravaginal hematoma may develop from a difficult vaginal delivery, or indeed from an improperly sutured episiotomy. Uterine inversion may be associated with too vigorous cord traction, too vigorous Kristella pressure by an assistant, or with uterine anomalies. This complication has been reported in association with cortisone administration in mice. Uterine tumors may prevent the uterine contracting mechanism from functioning normally, and hence lead to hemorrhage.

Postpartum hemorrhage resulting from

rupture of a utero-ovarian, ovarian, or suprarrenal vein seems to be one form of postpartum hemorrhage that has no consistent predisposing factor. The presence of vulvar and perineal varicosities, however, might suggest the presence of large varices within the broad ligament area and the pelvis.

Predisposing factors for late postpartum hemorrhage are less apparent than those for immediate hemorrhage, with the possible exception of the administration of exogenous estrogen for control of lactation. This measure may result in bleeding on withdrawal of the preparation.

Diagnosis and Treatment

Knowledge of the predisposing causes of postpartum hemorrhage contribute immeasurably to the early recognition of the problem and to the accurate diagnosis upon which successful treatment depends. By anticipating the emergency, the obstetrician can have blood cross-matched and an avenue for fluid and blood prepared prior to delivery. A 16 to 19 gauge needle should be kept open with a slow drip of 5 per cent dextrose and water. If this has not been done earlier, an assistant should start the infusion as soon as hemorrhage becomes apparent.

Complete and careful examination from the top of the fundus to the introitus is necessary immediately, in order to insure accurate diagnosis. A primary concern is to conserve blood, for no blood is as good as the patient's own. While the examination is being made, blood should be obtained and transfusion started, under pressure if necessary. Blood is by far the best agent for replacement, since it has volume-expanding as well as oxygen-carrying properties. There is no good substitute for *blood*!

As soon as the cause of bleeding has been determined, corrective measures are begun. If atony is the cause, 2 ampules of Pitocin in 1000 cc. of a 5 per cent solution of dextrose and water should be infused fairly rapidly, in addition to the intramuscular and/or intravenous instillation of ergotrate. Bimanual uterine compression seems to be the best method of controlling this type of hemorrhage. Some authorities have advocated

packing the uterus, but many physicians consider this method unphysiologic. Certainly if one attempt at packing fails, another is not justified.

Lacerations, of course, should be repaired immediately under direct vision, and assistance should be available. Retained placental fragments should be removed as soon as detected. The discovery of a ruptured uterus requires immediate laparotomy and probably hysterectomy. The failure of blood to clot because of afibrinogenemia is corrected by the rapid administration of fresh whole blood, preferably collected in plastic bags, by the administration of human plasma fibrinogen, or both. Paravaginal hematoma should be evacuated and the area packed tightly if the site of bleeding cannot be found. For satisfactory results, the vagina should usually be packed also. The packing should be removed in 24 to 36 hours. An inverted uterus must be restored to normal position by either the vaginal or a combined vaginal and abdominal approach. Rupture of a utero-ovarian vein, once diagnosed, must be approached immediately through the abdomen.

The treatment of delayed postpartum hemorrhage demands the same careful diagnosis and decisive action as does immediate hemorrhage. If the bleeding is external, examination under anesthesia, and dilatation and curettage, are frequently necessary. Slight bleeding may be treated first with ergotrate, but persistent or heavy bleeding should be investigated and treated accordingly. Dilatation and curettage will usually control it. Packing may be necessary occasionally and is, in my opinion, of more value in delayed than in immediate hemorrhage. The administration of estrogen after delivery suggests a possible cause, and if the bleeding is not severe it may require no intervention. Concealed hemorrhage—that is, intra-abdominal hemorrhage as from a ruptured utero-ovarian vein—has been reported as late as 21 days *post partum*, and must be treated as outlined above.

Complications

Suppose that we have successfully combatted the initial insult of hemorrhage and

that our patient is alert and her vital signs are stable. Can we now relax our vigil? The answer is *No!* There are several complications of severe hemorrhage that must be considered. The major ones are: (1) transfusion reactions; (2) severe anemia; (3) electrolyte and fluid imbalance; (4) homologous serum jaundice; (5) anterior pituitary necrosis (Sheehan's syndrome); and (6) acute renal failure.

Most of these complications need no elaboration. Severe anemia, in addition to the danger associated with further hemorrhage, predisposes the patient to infection, the consequences of which are apparent. Sheehan's syndrome may be manifested in the early period by failure of lactation. This syndrome may be either partial or complete. The gonadotrophic function of the pituitary gland seems to be the first to go. Thyroid and adrenotrophic function may be sufficient, while gonadotrophic function is deficient.

Acute renal failure deserves special emphasis, since this condition is so frequently mistreated—or in fact unsuspected. Every patient who has experienced any degree of shock should be treated as though she has renal suppression until proved otherwise. Details of this treatment are beyond the scope of this paper, but the reader's attention is directed to the excellent paper on this subject by Parker and associates¹.

Summary

For the purposes of this paper, postpartum hemorrhage has been defined as excessive bleeding occurring at any time between delivery and the end of the puerperium. The causes of both immediate and delayed hemorrhage have been outlined, with emphasis on the predisposing factors which make it possible to anticipate this obstetric complication and to prevent or be prepared to treat it should it arise. Present methods of diagnosis and treatment are presented, and a brief comment is made on the later complications of hemorrhage that may ensue.

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Surgical Infections: Orthopedic Considerations

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PHILADELPHIA

Infections are an ancient affliction of man. Witness the Book of Job. Satan and the Lord had been engaging in an altercation, and the Lord had given Job over to Satan's hand with the single admonition to spare his life. "*So Satan smote Job with sore boils from the sole of his foot to the crown of his head and Job took a potsherd and sat in an ash heap and scraped himself.*"

What a picture of abject despair! Until recently a man of great wealth, whose oxen and donkeys had been slain in the fields along with his servants; whose sheep had been killed by lightning; whose camels had been stolen by the Chaldeans; whose seven sons and daughters had been killed when the house fell upon them during a hurricane—a man now sitting in the ashes and scraping himself with a broken flower pot.

The picture is not too different from the economic disaster, ill health, and loss of life which we have all seen as a result of staphylococcal infections today. The difference, however, is that man rather than Satan may have smitten himself with infections through the indiscriminate use of agents designed to combat them, and further complicated his error by forgetting time-proven prophylactic techniques.

During the past five years in the United States, and since 1953 in England, considerable attention has been directed to what has been called, perhaps detrimentally, the hospital staphylococcal infection. It is true that in the early days it was primarily a hospital problem. In five years' time, however, it appears to have become a public health problem.

As a reaction against making the hospital a whipping boy, several recent reports purport to show that actually there has been no increase in surgical infections in identi-

cal procedures during the past 20 years. Parallels are difficult to draw, particularly because of the advent of phage-typing, but in the last five years we have seen a measurable increase in the number of infections in open reductions of the fractured hip, in spinal fusions, and in subastragalar arthrodesis. The major bacteriologic offender in this group of cases—and in fact in all observed orthopedic infections—has been the hemolytic *Staphylococcus aureus*, phage-type 80/81. We firmly believe that institutions reporting no infections are institutions that have not carefully searched for them.

Experience at Temple University Medical Center

In late 1955 and early 1956 the staff physicians of Temple University Medical Center were made aware of an apparent increase in clean surgical wound infections, cutaneous infections in the newborn, breast abscesses in postpartum nursing mothers, respiratory tract infections of the pneumonic type, cutaneous infections in non-surgical patients and personnel, in addition to suppurative arthritis and acute hematogenous osteomyelitis.

Statistical analysis over the last four years has shown the increase to be real rather than apparent. The voices of the past warning that the indiscriminate use of antibiotics would result in a new breed of resistant organisms were prophetic.

Method of study and general findings

Temple University Hospital is an institution of 1000 beds, with 60,000 admissions per year. Our study began in 1956. Since that time more than 1500 patients with clinical staphylococcal disease have been studied. The over-all uncorrected incidence of staphylococcal disease in these patients is 1.5 per cent.

The study was implemented by a case-finding committee with authority delegated by the hospital administrator. (To be

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effective, such a committee must have the complete cooperation of the hospital chief.) In addition to functioning as a group through which all infections could be studied personally and intimately, the committee embarked on an intensive search for a common denominator to resolve the problem.

All infections and hospital articles that could possibly be a source of infection were cultured on blood agar plates with susceptibility disks. Coagulase tests were performed on all isolated staphylococci. In addition, bacteriophage-typing after the method of Blair and Carr was done on all staphylococci as a means of elaborating the specific organism causing the infection.

The offending type 42B-52-81 was consistently susceptible to only two internally administered antibiotics—namely, novobiocin and chloramphenicol. Despite strict control of the use of these drugs in the hospital, they have lost their once enviable position. Fortunately the antibiotic pool has provided substitutes, but these agents are more toxic and less easily administered. The latter may be an advantage, since the physician may hesitate to prescribe an antibiotic that must be given intravenously.

On the basis of 10,000 clean surgical procedures done in 1956 at Temple, the infection rate was computed at approximately 5 per cent. Almost all the infections were attributed to *Staph. aureus*, and 50 per cent to phage-type 80/81—which also accounted for nearly all the pneumonia cases and 75 per cent of the breast abscesses and boils. During the four-year period, in which approximately 40,000 operations were performed, only two group A streptococcal infections were noted. What a striking difference from the picture of 20 years ago! Infections caused by gram-negative organisms were likewise extremely rare, and were associated primarily with significant contamination of the bowel or urinary tract. The staphylococcal sepsis rate in clean surgical wounds in our institution has remained stationary since 1957, and the latter four years showed 60 per cent fewer infections in clean surgical wounds than were observed in our initial study in 1956. The over-all in-

cidence is now computed at 0.58 per cent—the same as in 1956.

Ward and private patients

We were unable at any time during our survey to incriminate any specific surgeon, nurse, or technician. It was noted, however, that there were twice as many staphylococcal wound infections in ward patients as in private patients. The significance of this observation is clouded by multiple factors in the two groups of patients. These factors include differences in economic status, duration of hospital stay before operation, hospital accommodations, duration of procedure, type of disease requiring operation, the age and general condition of the patient, the skill of the surgeon (since resident participation in the operation is more frequent in ward patients). This difference in infection rates, however, points to the need of resident training emphasizing the fundamentals of surgical technique and wound physiology, which are too frequently forgotten in the researcher's zeal for surgical experience.

From 1956 to 1960 the number of pustules and carbuncles rose throughout the hospital. That this increase was noted on all services tends to emphasize the fact that staphylococcal disease in the hospital is not the concern of one department. Control measures are equally important on all services. If this principle is not accepted, the over-all staphylococcal population in the institution is not reduced; and such a reduction is, after all, the most effective means of control.

The Search for a Common Factor

Personnel

In the early days of our survey we, like others, were confronted with the problem of finding a common denominator. Cyrano de Bergerac said, "A great nose indicates a great man; genial, courteous, intellectual, virile, courageous." We were prepared to add infections to his classification. It is well known that man's hand goes to his nose or nasal labial fold between 15 and 20 times an hour. We cultured nasal mucus from 640 hospital staff members and workers, and

discovered that 265 were carriers of *Staph. aureus* coagulase positive. We felt then that the common denominator had been discovered. When we phage-typed the 265 carriers, however, we found that only 11 carried 80/81. It was statistically impossible for these 11 to account for all the surgical wound infections. Furthermore, on repeat culture at the end of the week, none of the 11 were found to be carriers of 80/81. This study has been repeated on several occasions, and at no time was the healthy nasal carrier a factor.

A more important finding was the concomitant rise and fall in cutaneous infections among patients and personnel. We felt that hospital personnel became infected through direct contact with the patient, and, in turn, were capable of transmitting the infections to other patients.

When an infection occurs, we are more inclined to look for its source in an infected vector rather than in the nose of the surgeon or assistants, not excluding droplet contamination, air contamination, or contamination of the patient's own skin. A safe attitude would be to assume that we do not know the source, but will make every possible effort to eliminate all potential sources.

During the year 1956 there was a total of 137 staphylococcal infections in 99 of our hospital personnel. It is significant that 79 of the 99 were nurses, and that 64 of these were student nurses. Only 15 were registered nurses. A student, of course, has the most intimate contact with the patient. Sixty-four per cent of the infections involved the face, the forearm, and the hands.

Housekeeping practices

After the initial disappointment in not finding the common denominator in the nasal passages of personnel, the committee embarked on a careful analysis of housekeeping practices. An attempt had been made to keep the movement of dust at a minimum by substituting wet-mopping and vacuum-cleaning for sweeping.

The air flow in the operating room was evaluated to make certain that it was not being drawn from a contaminated source.

The x-ray view boxes, through which air circulates readily by heat convection, were investigated and found to be dusty but not dangerous. Patients admitted for clean elective surgery were separated from those with known infections.

The laundry was investigated and contaminated linens were placed in marked bags and autoclaved before washing, in order to prevent the spread of contaminated material throughout the hospital and to workers in the laundry who would later be handling clean linens. Autoclaving was later abandoned and laundry workers were instructed carefully on the dangers of contaminated linens. Attention to this detail apparently has been quite effective, as there have been no infections among laundry personnel. Mattresses and pillows from a recently vacated bed were carefully cleaned with antiseptic material, as were the springs, bedstead, and night tables. Plastic pillow cases and mattress covers have facilitated this procedure. Linens were found to be sterile on arriving from the laundry.

It was discovered that blankets which had been in intimate contact with the patient had been casually folded and returned to the foot of the bed, regardless of any infections that the discharged patient may have had. Blankets were washed if grossly contaminated, but no attempt had been made to insure a clean blanket for each patient, much less a sterile one. This practice—which obtains in most hospitals and hotels—should be eliminated by routinely sterilizing every blanket after a patient's discharge.

Dishes and utensils from trays of patients with known infections were sterilized in a dishwasher on the floors, between meals, or throw-away plates were used. The hospital carafe, or water pitcher, has come in for considerable criticism as a source of infection. While the patient should have clean water to drink, staphylococcal enteritis is rarely caused by contaminated water.

Operating room practices

Surgical instruments, suture materials, and irrigating fluids, were found to be sterile. The liquid hexachlorophene soap

was sterile on arrival from the factory and sterile when dispensed from the drug room. The soap used for scrubbing in the operating room, however, was found to be contaminated with a coliform organism. While it was true that this organism was not causing our problem, we nevertheless reverted to the time-proven method of white soap applied with a stiff brush to the surgeon's fingers, hands and forearms. This at least removed the gross contaminants, although culture studies after scrubbing showed little in the way of colony loss over cultures made before scrubbing. The scrubbing was followed by a rinse in 70 per cent isopropyl alcohol.

Protection of patient and personnel

The anesthesia mask, air waves, and intubation tubes were eliminated as a source of contamination, although the pernicious habit of washing these articles in the scrub sink after use, thereby contaminating the sink with whatever bacteria the tubes harbored, was changed to sterilization in alcohol between operations. The equally pernicious habit some surgeons have of washing and examining surgical specimens in the scrub sink was forbidden.

Nurses were given a new type of cap which completely covered their hair. A double filter mask was substituted for the old surgical mask, which after a one-hour procedure had been found to have nearly as many bacteria on the outside as on the inside. The newer mask does a better, though not a perfect job of filtration.

It seemed illogical to require instruments and gloves to be sterilized for 20 minutes and the surgeon to scrub his hands for 10 minutes and then allow an assistant to make a cursory pass at the patient's abdomen with some brilliantly colored antibacterial solution before bringing the contents of the abdominal cavity into contact with the skin. This cursory preparation was therefore replaced by thorough cleansing with soap and water, followed by washing with ether and alcohol. Tub baths or showers for the patient were requested preoperatively, and patients scrubbed their own extremities whenever possible.

A proper gloving technique was emphasized. Shoes were required to be clean, conductive in type, or enclosed in a conductive boot. Operating room uniforms replaced the usual street clothes for visitors in the operating room attire on hospital rounds was prohibited. A nurse to assist in the post-operative change of dressings was mandatory. A special room was reserved for surgical patients with infections. Personnel were instructed in care of the hands after attending patients. Contaminated instruments were autoclaved before cleansing to protect the person cleaning them, and contaminated dressings were bagged and autoclaved before being turned over to the trash collector for burning. This step was taken to protect personnel and prevent the dissemination of contaminated material throughout the hospital.

Aseptic technique

The oscillating cast saw, with its often grossly contaminated dust, was confined to the cast room. The saw's vacuum attachment contributes to the circulation of floor dust—frequently a source of *Staph. aureus*—through the air vents in its base. The general aseptic technique, including restrictions on conversation at the operating table, came under careful scrutiny, and silence was insisted on as much as possible.

Precautions Regarding Use of Antibiotics

The committee further insisted on the discriminating use of antibiotics. The use of agents to which the organisms currently infesting the hospitals were susceptible was limited to those patients who had not responded to standard methods of treatment. This was done in an all-out effort—not completely successful—to prevent the development of organisms with a broader spectrum of resistance.

A similar problem will arise when staphicillin becomes available, and we believe that this drug should be reserved for those infections caused by the penicillinase manufacturing *Staph. aureus* of the resistant type. The dangerous practice of pre- and post-operative prophylactic antibiotics is condemned.

Orthopedic Surgery

The problem of infection in orthopedic surgery is somewhat unique. First, a large segment of our practice is geriatric. The average age of our 20-bed women's orthopedic ward is 72.2. These patients are largely bed-ridden and have low resistance. Normally, man is in a state of equilibrium with pathogens ubiquitous in his environment. What upsets the equilibrium? Physical trauma, for one thing, and inadequate food intake for another. Many older people seem to get along fine with the latter until some injury strikes and causes a change in their internal and external environment. Lowered resistance to infection would thus appear to be a very real factor.

For three months in 1957 boils on the neck, back, and buttocks seemed to be the rule rather than the exception. Three of 10 open reductions of fractured hips became infected—all in older people. If patients can survive the initial insult of an infected wound followed by boils and pneumonia, however, they develop a sort of immunity, so that the wound and—what is more important—the fracture eventually heals. A sinus, on the other hand, usually remains until the metal is removed when union is complete, whereupon the sinus itself is usually eradicated.

Another factor compounding our problem is the number of surgical patients who have been taking steroids, often without their knowledge. Steroid therapy may be an indication for conservative rather operative treatment, or perhaps for delay in elective surgery until the steroid dosage can be reduced or eliminated.

Furthermore, orthopedic procedures, no matter how gentle, involve tissue damage and hematoma, too often complicated by the insertion of relatively inert but nonetheless metallic devices. An intact skin is still the best insurance against infection.

Since 1956 the incidence of acute hematogenous osteomyelitis and acute suppurative arthritis has significantly increased. From the beginning of the antibiotic era until 1956, incipient osteomyelitis could be readily controlled and cured by an adequate

intake of penicillin. In 1956 this situation changed radically. Penicillin might attenuate the course of the infection, but it frequently resulted in massive sequestrum and involucrum formation, and spread of infection throughout the length and breadth of the long bone, masking appreciably the extent of the patient's illness. More commonly, septicemia developed and the high temperature responded only to surgical drainage. Since penicillin is still bactericidal to *Staph. aureus* on contact, we have given it in a 1.0 per cent solution, using an instillation-suction-irrigation procedure with gratifying results.

Every effort should be made to eradicate chronic, draining osteomyelitis completely. It is a dangerous source of infection in the home and community environment, and as a source of chronic irritation carries the ever present potential of Marjolin's ulcer or malignant changes in the sinus tract. The suppurative joints are drained as soon as recognized, and drainage is maintained until the wound has healed with no evidence of pocketing.

Other Precautionary Measures

What other specific measures can be taken to combat the spread of infections in the hospital? Although complete isolation is not possible in the wards, every effort should be directed toward this goal. Changing both sheets every two days so that the contaminated top sheet never goes beneath the patient may have been of some help in eliminating our rash of boils. Care of the back and frequent turning are well recognized nursing procedures.

Patients should be gotten up as soon as possible, but beware of the wheel chair as a source of infection! A common reason for getting patients out of bed is pressure sores, which easily become infected. It may be of interest to find out when the wheel chairs were last thoroughly washed.

From the surgical standpoint, a rapid, efficient, atraumatic approach, respecting the blood supply and achieving hemostasis, followed by an anatomic closure, eliminating dead space and involving a minimum of irritating suture material, is essential. No

compromise must be permitted in preparing the skin for operation, particularly sites that have been enclosed in plaster. The oscillating cast saw must be respected as a cutting instrument.

Good surgery is rarely complicated by infection. The precept of gentle tissue-handling must not be neglected because our tools now include the hammer, saw, chisel, screw-driver, and ratchet-operated self-retaining retractor. Injured tissue is as fertile a culture medium as hematoma. Tools must be respected and handled carefully. Wet gowns, inviting contamination, particularly perineal, should be changed.

Postoperative infections on the orthopedic service at Temple University Medical Center were almost invariably related to hematoma and occurred predominantly in prolonged procedures or in elderly debilitated patients. As a rule the hematoma was caused by (1) failure to achieve adequate hemostasis—evidenced by the anesthetists' euphemistically called "ooze"; (2) a false hemostasis due to hypotension at the time of wound-closure either because of blood loss or anesthetic complications; and (3) inadequate pressure dressings, persistent dead space, or incomplete immobilization. The integrity of human tissue must be respected at all times.

Results and Conclusion

What did our efforts at Temple accomplish? Certainly it made us aware of a serious problem for which every member of the hospital team was responsible. We believe that it also reduced the staphylococcal population of the hospital. Statistically, the rate of infections fell from the over-all figure of 5 per cent in clean surgical cases to 0.58 per cent. It is noteworthy that for some types of operations the rate is still high. A further reduction must be made by more careful exposure, more effective drainage, and perhaps more careful preparation of the patient.

The answer to the problem does not lie in prophylactic antibiotics. These drugs are a potent weapon against established infections, but basically the treatment of infection is drainage, whether one is dealing with wounds, boils, infected joints, hemolytic osteomyelitis, or pneumonia (where drainage is effected by bronchoscopy).

The war against infections must be won not by antibiotics, but by a return to basic precepts in the hospital and in the operating room. The surgeon's guard must never fall! His work must be based on a non-traumatic, anatomic, orderly, operative approach, respecting blood supply and achieving complete hemostasis, with complete asepsis as his constant handmaiden.

PHARMACEUTICAL CONTRIBUTIONS

Present indications are that in the sixties our growth will be even more fabulous than in the fifties and the forties. In that two-decade period more effective new drugs to prevent, diagnose and treat countless illnesses were discovered than in the entire period of recorded medical history. Do you realize that 80 per cent of the prescriptions now written could not have been prescribed 10 years ago, that 1 and $\frac{1}{4}$ million Americans are alive today because of new treatments in the past 10 years, and that five years have been added to man's lifespan in the last few decades—Leonard W. Larson, M.D., President, American Medical Association, to American Association of Medical Assistants.

A Pediatrician Looks at the Hazards of Diagnostic Radiation

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While diagnostic roentgenography is essential in the practice of medicine, it is a potentially dangerous tool when used indiscriminately. The best radiographic information is obtained from properly installed equipment, with regulatory devices, in the hands of competent persons who are fully aware of the dangers involved.

Much has been written about the hidden dangers of radiography, but unfortunately this information has not been widely disseminated among the large group of physicians who utilize this tool in their everyday practice. Being unaware of the extent of the hazards, they cannot take the necessary precautions against them.

In 1942 Buschke¹ warned against the hazards of repeated fluoroscopic studies of infants, and cited many examples of the harm that could come from them. He stressed the potentially damaging effects of radiation on the gonads, homopoietic system, and growing centers. Others have referred to the dangers of faultily installed apparatus, improper techniques, and unwise exposure. Even today, after 20 years of repeated warnings, these faults persist. This paper directs attention to a small portion of the over-all problem: the unnecessary exposure of the gonads of children to radiation.

Sterility and Genetic Mutation

Sterility can definitely be induced by radiation, as Abers-Schonberg demonstrated in 1903. This and the other, more serious, danger of mutation was discussed by Stone² in 1955. That a dose of 600 roentgens to the gonads is capable of producing sterility has been demonstrated by histologic section. There is no argument here. Because of the long life span of human beings and the magnitude of the mathematics of genetics, however, it is difficult to appreciate the mutagenic potential of exposure to x-ray. This problem has been discussed at great length by Stern, Muller, Dunn, and Russell (see

Sonnenblick³). To those acquainted with the scientific evidence, there is no doubt that future generations will be affected in some way. The real problem is: "What size dose is necessary to produce mutation?" Studies in animals and insects reveal the following facts:

1. There is no valid evidence of a so-called threshold dose.
2. The total cumulative dose is the determining factor.
3. There are conditions affecting term cells which make them more or less susceptible to the effect of any dose. Therefore, until we have definite proof of the cumulative dose which will produce mutations, we must restrict ourselves to an *estimated* safe dose.

In 1956 the International Committee on Radiation Protection estimated that 10 REM (roentgen equivalent man) be set as a limit for gonadal exposure to radiation from medical sources to the age of 30. In essence this means that when this limit is exceeded the potential mutagenic effect is greatly magnified.

It must be realized that unmonitored fluoroscopic machines may deliver as much as 118 r per minute, when only 3 to 6 r per minute is needed. This fact was reported by Sonnenblick⁴ in a survey of machines used by competent physicians. Though this exposure is at skin level, it represents a wide range of variation and when compounded by lengthy examination may be even higher. Miller⁵ cites a case to show that an infant with malnutrition and/or diarrhea may, in the course of an evaluation by fluoroscopic examination of the chest, gastrointestinal series, and barium enema, be exposed to a total of 150 r. Much of this dosage would be delivered to the gonadal region. Another example he cites is that of the child with a cardiac problem who undergoes chest fluoroscopy, angiocardigraphy, and catheterization. The total dose of this examination is in the range of 140 r. He fur-

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Table 1
Doses in REM Received by Gonads
During Routine Studies without Protection

Site	Male	Female
Colon (barium enema)	0.040	0.020
Abdomen	0.069	0.200
Kidney and ureter (pyelography)	0.486	1.290
Bladder	0.279	0.690
Pelvis	1.100	0.210
Hip	0.710	0.210
Lumbo-sacral region	0.022	0.220
Oviduct (salpingography)		1.700
Female pelvis (pelvioradiography)		1.280

ther states that a chest film requires 0.05 r in a range up to 0.2 r. If 15 r is administered during fluoroscopic examination, the patient is exposed to anywhere from 75 to 300 times the necessary dosage.

It is an almost routine practice to expose the entire body of any infant when making chest roentgenograms. Similarly it is common to make a complete series of skeletal films in order to evaluate bone age, when possibly a film of the wrist and hand would be enough. I have seen from 30 to 40 films taken without gonadal protection in the course of treatment for congenital dislocation of the hip. This exposure was between 20 and 30 r, or two to three times the allowed maximum.

Without regard to the merits of exposure in any given case, these are examples of common abuse. Can they be justified? Can one justify the use of x-ray to locate a foreign body when the history reveals that the body is of a plastic substance that can't possibly be visualized by x-ray? Can one justify the use of roentgen examination to evaluate a possible orthopedic injury when a careful history and physical examination yield no evidence to support the presence of a fracture? Can one justify irradiation for a suspected injury merely because compensation or liability is involved? These are questions which must be included in any consideration of roentgen exposure. There have been many conflicting reports concerning the amount of radiation that is delivered directly to the gonads by different procedures. Ardran⁷ demonstrated that considerable protection can be afforded the gonads by covering them with a 1-mm. shield of lead. In a routine roentgen study of

Table 2
Number of Exposures Totaling Maximum Dose
of 10 REM

Site	Male	Female
Colon (barium series)	250	500
Abdomen	140	50
Kidney and ureter (pyelography)	20	8
Bladder	36	14
Pelvis	8	45
Hip	14	45
Lumbo-sacral region	450	45

the pelvic area, the average skin dose to a testis would be in the range of 2 r, whereas use of the shield reduces the dose to the range of 0.042 r. Osborne⁸ has reported that the average exposure dosage to the gonads in both males and females depends on the type of films being taken. The following chart demonstrates average doses delivered during routine studies.

In view of these data, it is not difficult to see that repeated studies make it relatively easy to exceed the maximum dosage of 10 r to the gonads to the age of 30 prescribed by the International Committee on Radiation Protection.

Precautions

In the light of the foregoing facts, there is no question that precautions must be taken. The following measures have been recommended:

1. Only x-ray machines which are properly adjusted by experts should be used.
2. Fluoroscopes should not be installed in the average physician's office except under unusual circumstances.
3. Fluoroscopes now in physicians' offices should be examined by qualified radiophysicists for both electrical and radiologic hazards and inspected periodically thereafter.
3. Radiologic consultation should be sought whenever fluoroscopic examination is being considered in order to obtain the maximum information from the minimum dosage and allow patients the advantage of all recent advances in both equipment and methodology.
5. The testes and ovaries should be protected by a screen whenever possible

without detracting from the adequacy of the examination indicated.

6. Roentgenography should replace fluoroscopic examination whenever possible.

Conclusion

It is beyond the scope of this paper to go into a detailed discussion of all the technical aspects of radiation. Individuals who are interested in particular phases of radiation should consult Sonnenblick's work.

Finally, all physicians should familiarize themselves with the inherent dangers of irradiation and before ordering any procedure that will expose a patient to x-ray should do the following:

1. Obtain a careful history and make a thorough physical examination.
2. Consider whether the information sought can be revealed in the proposed study.
3. Weigh seriously the hazards of radiation exposure against the value of the information sought.
4. When the proper films have been ordered for study, see that all possible precautions are rigorously adhered to.

It will be agreed that the hazards of diagnostic radiation in non-expert hands are great, and should be considered carefully. With the growing public awareness of the

problem, physicians must be able to reassure their patients that any irradiation used in a diagnostic test is considered necessary to the patient's welfare; (2) that all hazards have been considered and protective measures taken against them.

Acknowledgment

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THE HEADLONG RUSH TOWARD DISASTER

If this country is to survive as anything resembling the democracy of stalwart individuals standing upon their feet through the free enterprise system that it was intended to be by the men who died at Lexington, Concord and Valley Forge almost two hundred years ago, the headlong rush toward the ultimate disaster of a welfare state must be discouraged. Traditionally, the medical profession has always been in the forefront of this battle; even now we are under heavy fire to bring us, too, under the domination of the government. If we fail to stand firm, the cause is lost beyond redemption.—*What Price Welfare?*: Frank G. Slaughter, M.D., *Journal of Florida Medical Association*, Dec. 1961.

An Evaluation of the Schiller Stain in the Diagnosis of Cervical Cancer

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and

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Although the Schiller test has been known and used for more than 30 years, it has not enjoyed great popularity in this country. Except for the writings of Dr. Paul Younge, the American literature contains few references to the use of the iodine-staining test to supplement the Papanicolaou smear for the early detection of cervical cancer.

It is well known that no one method of cancer detection is infallible, and many authors have encouraged the use of combinations¹. By comparing the results in a few selected reports, one finds that the cytologic test has an accuracy rate in the diagnosis of carcinoma *in situ* of 70 to 90 per cent^{1c}. The rate for biopsy is 78.0-87.5 per cent^{1d,2}, for colposcopy 75.9³, and for the Schiller test 82.3 per cent^{1d}.

The Schiller test is quite easy to perform and not at all difficult to interpret. Thus it can be used by physicians in many types of practice. It is based on the presence of glycogen in the cytoplasm of normal squamous cells. When Gram's iodine or Lugol's solution is applied to the cleansed normal cervix, a dark mahogany stain appears immediately. In abnormal conditions such as carcinoma, atrophy and ulceration, glycogen is absent from the cells; and hence there is no discoloration. The glandular epithelium of the endocervix will not take the stain, and in cervical eversion and erosions the test is not applicable. The interpretation is based only on the reaction of the squamous epithelium to the solution.

Technique

The technique used in our clinic has been first to take a smear from the vaginal pool and another from the cervix. Afterwards the cervix is thoroughly cleansed of all mucus and cellular debris by the application of 1:1000 aqueous zephiran. After the cervix has been dried with cotton, the iodine solution is liberally applied by large cotton balls on ring forceps. Specimens are then taken for histologic examination from all areas of squamous epithelium that do not become discolored—that is, iodine-negative or Schiller-positive areas.

Routine evaluation of the cervix in the Gynecologic Clinic at DePaul Hospital prior to June 1, 1959, had been made principally by inspection of the cervix, by histologic examination of vaginal and cervical smears, and by biopsy of questionable areas. In reviewing the work of several years prior to this time, it was noted that biopsies were done far too infrequently. It was also noted that of 53 surgically proven cases of carcinoma *in situ* in the four years prior to June 1, 1959, there were 4 to 7.5 per cent false-negative results. Therefore, in order to familiarize our residents with the routine use of the Schiller test in combination with the cytologic smear for cancer detection and to evaluate more closely the accuracy of our cytology, it was decided to screen all gynecologic patients by the combined methods for at least one year.

For this study, all obvious or previously diagnosed cases of cervical carcinoma were excluded. There were 8 such cases in this category. From June 1, 1959, to June 1, 1960, 1,277 visits were made to the clinic. From these patients 625 initial smears were obtained and an equal number of Schiller tests were performed. Two hundred four

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patients with non-staining areas were subjected to biopsy. This represents approximately 1 biopsy for every 3 patients tested by the Schiller technique.

By the combined methods of cytology, Schiller test, and biopsy, 14 unsuspected cases of cervical disease were found. Of these patients only 3 yielded positive smears and microscopically positive specimens from iodine-negative. (Schiller-positive) areas. Three patients with negative smears were found to have carcinoma *in situ* on biopsy of Schiller-positive areas. In 2 patients with positive smears the diagnosis was not confirmed by the Schiller test but nevertheless proved to be carcinoma. The remaining 6 patients yielded positive smears which, though the Schiller test showed glycogen-poor epithelium, were found to represent varying degrees of chronic cervicitis and/or dysplasia. These patients were studied further by dilatation and curettage and knife conization.

Five of these cases—namely, the 3 with false-negative cytology and the 2 with false-negative Schiller tests—will be summarized briefly.

Case 1. Patient aged 26. Smear negative. Histologic examination of specimen removed from iodine-negative (Schiller-positive) area revealed carcinoma *in situ*.

Case 2. Patient aged 32. Smear negative. Histologic examination of tissue obtained from Schiller-positive area revealed carcinoma *in situ*.

Case 3. Patient aged 37. Smear negative. Specimen removed from iodine-negative (Schiller-positive) area highly suggestive of carcinoma *in situ*. Diagnosis confirmed by conization.

Case 4. Patient aged 34. Smear positive. Histologic examination of tissue obtained from iodine-negative (Schiller-positive) area reported as chronic cervicitis with marked dysplasia. Conization revealed carcinoma *in situ*.

Case 5. Patient aged 59, presented complaint of postmenopausal bleeding. Positive smear obtained after

sounding cervix. Cervix was iodine-negative (Schiller-positive). Histologic examination of four quadrant biopsy specimens reported highly suggestive of carcinoma, and additional specimens obtained at time of dilatation and curettage revealed invasive carcinoma.

Comment

Although our number of cases is small, it is apparent that the Schiller test is a useful, simple, easily applied adjunct to cancer detection, and more interest should be aroused in its routine use. The value of performing biopsies as outlined by Foote and Steward⁴ is unquestioned. We believe, however, that biopsy is unnecessary in an iodine-positive (Schiller-negative) cervix in asymptomatic women with negative smears. We agree with Younge⁵, who feels that from a practical point of view, in patients without symptoms or grossly suspicious lesions, the negative Schiller test seems as reliable as cytologic smears or random biopsies.

Our results would indicate that in 625 clinic patients the cytologic smear, if used alone, would have uncovered 5 new cases of carcinoma, or roughly 8:1000. Three additional cases were detected solely by the Schiller test, bringing our clinic detections for the year to 12.8:1000.

We are aware of the increased cost of utilizing the Schiller test and biopsy, especially when used in conjunction with the cytologic smear. It has been stated that the cost per positive cytologic diagnosis varies from \$150 to \$1700⁶. Our cost averaged \$518 based on a charge of \$5.00 for the smear and \$10.00 for the combination of smear and biopsy.

Summary and Conclusions

1. From 1277 clinic visits, 625 patients were screened for cancer of the cervix by this simultaneous use of cytology and the Schiller test. There was a total of 16 cases of carcinoma of the cervix, 8 of these being obvious lesions. There were 8 unsuspected cases of carcinoma, 1 invasive and 7 *in situ*. Of these, 3 were positive by either method

2 were detected by cytology alone (false-negative Schiller test), and 3 were detected by the use of the Schiller test (false-negative cytology).

2. This study has taught our residents to perform more biopsies, utilizing the iodine staining technique, and by so doing to increase our detection of early cervical lesions.

3. Interest has been renewed in the Schiller test and biopsy method as an adjunct to the cytologic smear in the detection of cervical cancer.

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Intestinal Obstruction Secondary To Traumatic Subserosal Hemorrhage

JOHN B. CODINGTON, M.D., F.A.C.S.

WILMINGTON

Trauma to the abdomen is relatively common, especially in children; intestinal obstruction resulting from traumatic subserosal hemorrhage is uncommon. The case presented illustrates the difficulties encountered in the diagnosis and treatment of such a condition.

Report of a Case

A 5 year old Negro boy was admitted to James Walker Memorial Hospital on March 6, 1961, with complaints of abdominal pain, nausea, and vomiting of two days' duration. His mother stated that he had fallen on a stick while playing, and had begun to vomit about 30 minutes later. He had not had a bowel movement since the accident, and had been unable to retain anything in his stomach. The past history revealed no operations or serious illnesses. He had had the usual immunizations, including poliomyelitis.

Physical examination revealed a well de-

veloped, well nourished Negro boy who appeared to be suffering abdominal discomfort. The pharynx was slightly injected. The abdomen was minimally distended, with a feeling of fullness in the upper portion on palpation. There was generalized tenderness which seemed to be most marked in the right upper quadrant. Rectal examination disclosed no abnormalities or localized tenderness.

Laboratory examination revealed a hemoglobin of 7.3 Gm. The leukocyte count was 6200, with 82 per cent polymorphonuclear leukocytes, 15 lymphocytes, and 3 monocytes. The blood urea nitrogen was 67 mg. per 100 ml. on the day following admission. Roentgenographic examination of the abdomen was reported as normal. A repeat roentgenogram of the abdomen obtained on March 9 showed little gas in the bowel and none in the stomach. A barium enema examination done on March 10 gave the impression that the transverse colon was displaced downward by a large mass in the upper part of the abdomen, such as a dilated stomach. There was no gas in the small bowel.

At this time the patient showed marked

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The assistance of Dr. Walter Lee Crouch of the Department of Pediatrics, James Walker Memorial Hospital, is gratefully acknowledged.

subjective improvement. He persisted in stealing food from the trays of other children on the ward and drank quantities of water when not being watched. He continued to vomit everything that he ingested, however.

During this time he passed several small greenish-colored stools, which were negative on examination for occult blood. A nasogastric tube was passed into the stomach, and an upper gastrointestinal series was obtained. This study showed extrinsic pressure on the descending limb of the duodenum from its lateral margin. Barium entered the jejunum, however.

On March 9 the blood urea nitrogen had fallen to 19 mg. per 100 ml. An intravenous urogram showed no abnormalities. A cholangiogram study done on March 14 was reported as showing the gallbladder to be unusually long and tortuous. The common bile duct was not dilated.

The radiologist thought that the fundus of the gallbladder was possibly the cause of the pressure defect which had been visualized in the duodenum. During this time the patient was maintained on intravenous alimentation.

Because of the continuing signs of high intestinal obstruction, he was taken to the operating room on March 15, 1961, and an exploratory laparotomy was performed. At operation the second and third portions of the duodenum, and the first 7 cm. of the jejunum distal to the ligament of Treitz, were markedly dilated and purplish in color. There was an obvious subserosal hemorrhage which was causing the obstruction. Subserosal hemorrhage was also noted in the region of the hepatic flexure of the colon. No marked hematoma formation was present in this area, however. A retroperitoneal hematoma involving the lateral gutter almost as far caudad as the cecum was noted. The gallbladder was 16 cm. in length, but appeared normal and emptied easily on pressure. The serosa of the proximal portion of the jejunum over the hematoma was incised, and approximately 100 cc. of dark blood and organizing clot was removed.

The hematoma of the jejunum was apparently continuous with that involving the duodenum. Manual pressure over the duodenum resulted in further evacuation of old blood. The serosa of the jejunum was closed with interrupted sutures of 000 black silk. A second incision was made in the serosa over the second portion of the duodenum. No further evidence of old blood was found in this area. The abdomen was closed without drainage.

Following the operation the patient did well. The Levin tube was removed on the fourth postoperative day, and a soft diet was prescribed. He was discharged from the hospital on the ninth postoperative day. An upper gastrointestinal series obtained on April 10 was reported as showing no evidence of duodenal or jejunal obstruction. To date, the patient has had no further difficulty.

Comment

Subserosal hemorrhage of the bowel has been reported on several occasions. Mestel and others¹ reviewed the literature and found 19 such cases. To these they added 2 of their own.

Clinically, subserosal hematoma of the duodenum or jejunum almost always follows a history of abdominal trauma. Symptoms are those of a high intestinal obstruction. Felson and Levin² reviewed the roentgen findings in these cases and described a characteristic "coil spring" mucosal pattern.

In most of the cases reported there was leukocytosis, with an increase in the number of polymorphonuclear cells¹. No previous mention could be found of an elevated blood urea nitrogen level in these patients. Our patient had a blood urea nitrogen of 67 mg. per 100 ml., which slowly returned to normal. This was most probably due to the associated retroperitoneal hemorrhage and the resultant absorption of blood.

Various methods of treatment have been tried, ranging from gastric suction with intravenous alimentation to resection of the involved bowel. Most of the reported cases were treated surgically. Evacuation with primary closure was usually effected with

excellent results. Most commonly, duodenal collections of blood terminated at the ligation of Tritz. Only 2 other cases in which the hematoma involved both the duodenum and the jejunum could be found³. There are two reported cases in which resolution of a hematoma of the colon produced obstruction.

In another case⁴, which was treated non-surgically, the patient was kept on gastric suction for 14 days, at which time he began to pass tarry stools. It was thought that the duodenal hematoma had evacuated into the bowel. Three months following the injury a minimal defect was still present in the duodenum.

It is my opinion that resection of the involved intestine is too radical a method of treatment, while gastric suction with intravenous alimentation is too conservative. Evacuation of the hematoma appears to be the treatment of choice.

Summary

A case of traumatic subserosal hemorrhage resulting in high small bowel obstruction is reported.

The clinical, laboratory, and roentgen findings have been reviewed. It is felt that exploratory laparotomy with evacuation of the hematoma is the procedure of choice in the treatment of this condition.

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A Newer Technique for Terminating Attacks of Paroxysmal Auricular Tachycardia

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BURLINGTON

Paroxysmal auricular tachycardia can be a disabling illness. Many attacks can be aborted by the use of the measures usually taken to stimulate the carotid sinus or vagal nerve. Attacks that can be stopped quickly do not constitute too serious a clinical problem. Those, however, that last for two hours or longer, and are associated with pronounced symptoms, can impose a financial and emotional burden on the patient and his family. With the mounting cost of hospital care, any procedure that will prevent unnecessary hospitalization will be a useful adjunct to therapy.

Episodes of paroxysmal auricular tachycardia are prone to recur frequently in the same patients. Over a period of 10 years we have evolved a routine that has made it unnecessary to put these patients in the hospital because of a prolonged attack.

Hospitalization was previously deemed

advisable because of symptoms related to the diminished cardiac output. Patients would complain of dizziness, syncope on standing, weakness, inability to stand, chest pain, and palpitation. Observation over a period of time demonstrated that attacks which were stopped easily by carotid sinus massage were those in which the blood pressure remained at its usual level or rose concomitantly. In the latter cases, the rise could be explained on the basis of adrenergic stimulation resulting from apprehension.

In cases where the blood pressure fell, usually as much as 20-40 mm. of mercury systolic and diastolic, the converse was true. At this time, procedures directed toward vagal stimulation usually failed to stop the tachycardia. It was often noted that carotid sinus massage lowered the blood pressure even further.

Initially it was found that raising the

blood pressure above normal by the administration of levarterenol or neosynephrine or methoxamine in a 5 per cent glucose drip, usually brought relief. Then it was discovered that if the blood pressure was brought to normal or just above, resumption of carotid massage would stop the attacks.

Since intravenous infusions were expensive and time-consuming, an attempt was made to use a tuberculin syringe and a mixture of levarterenol and normal saline. The technique is as follows: One tenth of a cubic centimeter is drawn into the syringe and diluted to 1.0 cc. with normal saline. The syringe is inverted several times to insure mixing, and the needle is then placed in the vein. A nurse is instructed to take blood pressure readings on the opposite arm. Usually 0.2 to 0.3 cc. will raise the pressure to normal or slightly above. When this level is reached, the carotid sinus is massaged with the other hand; the needle remains in the vein.

Invariably the attacks are terminated. The entire procedure can be done in 10 to 20 minutes. The patient is grateful that his complaints can be relieved and he can be returned to normal activity during the time required for an average office visit. This technique has been used with good response and no deleterious effects even in patients who have had known heart disease.

Case Reports

Case 1

The patient was a 53 year old white woman who for the past 15 to 20 years had had episodes of tachycardia associated with weakness, shortness of breath, and inability to work.

Her past history revealed the usual childhood diseases and diphtheria. The attack of diphtheria, at 11 years of age, had left her voice altered. She had undergone the following operations: nasal surgery, cholecystectomy with simultaneous removal of the right ovary and appendix, dilatation and curettage on two occasions, and spinal fusion.

Examination revealed a normal blood pressure of 140 systolic, 80 diastolic, pulse 76 and regular, respiration 16. The heart was normal in size, and no murmurs were heard. Other findings were normal.

The patient was seen in December, 1955, because of an episode of paroxysmal auricular tachycardia. Her blood pressure ranged from 100/60 to 110/60. When stimulation of the vagal

nerve failed to stop the attack, levarterenol was given intravenously, and the blood pressure was elevated to 200/100. Carotid sinus massage then brought abrupt cessation of the attack.

Case 2

A 43 year old Negro woman was initially seen in October, 1960, because of a history of recurrent episodes of tachycardia since 1943, lasting from one to 24 hours. She had been taking both digitalis and quinidine in appropriate dosages, without significantly altering the frequency of the attacks. She had had hypertension since 1943. The past history was insignificant except for a hysterectomy done in 1943 for dysmenorrhea.

Her normal blood pressure was 180/110 and her normal pulse rate 76 to 82, with an occasional ectopic beat. The heart was slightly enlarged, and a grade II apical systolic murmur was present. The second aortic sound was much louder than the second pulmonic, was tambour in quality, and was followed by a faint diastolic blow heard loudest over the second and third costal interspace just left of the sternum.

Laboratory findings were within normal limits. An electrocardiogram revealed a left ventricular strain pattern, and the patient was considered to have hypertensive cardiovascular disease. She was seen on March 1, 1961, because of an attack of tachycardia of seven hours' duration. The blood pressure was 90/60, sitting; 130/100, supine. There was no response to carotid sinus massage. On administration of 0.1 cc. of levarterenol diluted to 1 cc. with normal saline, the blood pressure rose to 190/140. Carotid sinus massage was repeated and the attack stopped. The blood pressure two minutes later was 160/110, and 10 minutes later was 140/110.

Case 3

The patient was a 53 year old white male rehabilitated alcoholic who had been followed periodically since April, 1952. His normal blood pressure was 170/100. He was considered to have no heart disease.

He was seen on December 17, 1960, because of a sudden onset of tachycardia accompanied by dizziness and weakness. Massage of the carotid sinus was ineffective even though it had been successful in stopping an attack in 1955, when the blood pressure was 150/90. On the present occasion the pulse was 160 and regular, and the blood pressure was 130/90. One tenth of a cubic centimeter of levarterenol diluted to 1.0 cc. with normal saline was prepared, and 0.3 cc. was injected slowly, with blood pressure readings every 30 seconds. The blood pressure rose to 170/100, carotid sinus massage was reinstituted, and the attack stopped. The blood pressure five minutes later was 170/110.

Case 4

A 24 years old white woman had a sudden attack of tachycardia at 9:00 p.m. on December 21, 1957. When seen at 11:00 a.m. on the following day, she was apprehensive, weak, and dizzy. The blood pressure was 110/90 and the pulse 150 and regular. When carotid sinus massage proved ineffective, levarterenol was given intravenously, with a resultant rise in blood pressure to 150/100. Carotid sinus massage was then reinstituted, and the attack was terminated.

Case 5

A 53 year old white woman had had frequent attacks of paroxysmal auricular tachycardia for 15 to 20 years (about five or six per year). Her usual blood pressure was 130/80, and she was not thought to have heart disease. A consistent feature of the episodes was that whenever the blood pressure was less than 120/80, carotid sinus massage was ineffective, but if the blood pressure was higher than 130/80, this measure was successful without the use of a sympathomimetic.

The patient was seen on August 21, 1959, with a heart rate of 200 and a blood pressure of 90/60. Carotid sinus massage was ineffective. Levarterenol was given intravenously, and the blood pressure was thereby elevated to 140/90. Resumption of carotid sinus massage then stopped the attack.

Case 6

A 78 year old white woman, the mother of the patient in case 5, was referred to me with a month-long history of nausea, vomiting, and watery diarrhea. Throughout her life she had had attacks of tachycardia lasting from minutes to hours and often requiring medication for relief. There had been some labile hypertension in the past.

On the first office visit her blood pressure was 130/80 and the pulse 72 and regular. Tachycardia suddenly developed during the examination, the blood pressure fluctuating from 130/80 to 90/70. Carotid sinus massage proved ineffective. An infusion of levarterenol was started, and the blood pressure rose to 160/90. Massage was then resumed, the tachycardia ceased, and the blood pressure became stable at 130/90. Electrocardiograms made during the procedure revealed a bundle branch block on the right.

Discussion

Many drugs have been used in the treatment of paroxysmal auricular tachycardia. Friedberg's standard textbook, *Diseases of the Heart*, lists the following drugs as useful: digitalis, ouabain, phenylephrine, methoxamine, levarterenol, methacholine brom-

ide, neostigmine, procainamide, potassium salts, magnesium salts, Atabrine, and sometimes quinidine.

Friedberg also described a technique similar to the one reported here, using phenylephrine instead of levarterenol, and emphasized rapid injection of the solution. This causes a rapid rise in the blood pressure and secondary stimulation of vagal impulses. The dangers of this method are unexpected and excessive elevation of the blood pressure, intense headache, and the possibility of precipitating a cerebrovascular accident. The technique described in this paper raises the blood pressure to a level which the patient normally tolerates. The distended blood vessels and pressure receptors are then in an optimal state to be further stimulated by carotid sinus massage.

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The Medical Spectator

The affair of the American automobile industry with the American physician has been richly rewarding. From the turn of the century, when practitioners braved small town wits and got a car, to the present preempting of the back page of the *AMA News* by General Motors, usually for Cadillac, this romance has flourished. Yet the car manufacturer has been less than appreciative, except of the profit. What car has been named for a doctor? Presidents, explorers, birds, a Roman god, meteorological phenomena, even football coaches have been honored, but no Osler 8 has rolled off an assembly line.

Yet for status a long car with fins still takes some precedence. (Recalling Homer Smith, this is perhaps the first step along the path *From Fish to Philosopher*.) Why a Cadillac should be so attractive has no doubt vexed even George Romney, and it puzzles me too, for who owns the longest,

Editor's note: The JOURNAL welcomes a return visit from the Medical Spectator, formerly a regular contributor to this journal.

blackest car in any community but the undertaker. Fortunately the advocates of the King-Anderson bill have missed this association or have been unable to dramatize it.

The English have been more subtle, attempting to establish a gentle meeting of minds. Who can forget the richly documented Rolls-Royce advertisement of recent years and their sound engineers who use stethoscopes to check delicate bearings and lyrical gears?

Recently Chrysler, racked by managerial chaos, has recognized the importance of cultivating the medical profession. "To America's 5,344 leading doctors" have come letters or phone calls offering personal use of a new 1962 Imperial. Mr. C. E. Briggs, a vice president, unnumbered, has extended me this invitation and has asked me as a personal favor to accept it without in any way being obligated. Here is a situation requiring great delicacy which I have resolved only by writing Mr. Briggs.

Mr. C. E. Briggs
Vice President, Chrysler Corporation
Detroit 31, Michigan

Dear Mr. Briggs:

Thank you for your kind invitation and your most enlightening and appreciative letter. Such an expression of confidence in my judgment will be long cherished. The brochure and letter have received my careful attention.

Unfortunately, I will not be able to accept your invitation. Such a refusal, I know requires an explanation and I shall try, ungrateful though my efforts may seem, to make you understand.

I own a 1958 sedan almost completely depreciated (bought used) and a 1956 Volkswagen, almost totally appreciated. Keep this in mind as you read the rest of my letter.

I will limit my comments to four points in the Comprehensive Guide to Imperial of 1962. The first, "Imperial's hood can only be unlocked from inside the car," is well taken; the hood of my VW also can be freed only from inside. Of course the motor is in the rear, but the gas tank is well protected and that gives me a sense of security. After

making me think you appreciated my taste as a VW owner, you then crushed me with, "Oil pressure gauge and ammeter are true gauges, not warning lights." No details spared, but the implied comparison of the Imperial with a low-priced foreign import hardly seems flattering.

Then, "Imperial upholstery is shrink-fitted to seats with live steam to eliminate wrinkles." This seems to me a dangerous exercise in animism, conferring life-like quality to hot air, and requires further documentation. And finally, "Imperial has the only fully-carpeted luggage compartment in the fine-car class." I have five rooms in my house which aren't carpeted yet so I don't see how I can be objective about the Imperial even on an analytical, unobligated test drive.

What I shall ever cherish, however, is the confidence you have expressed in ranking me among "America's 5,344 leading doctors." After that, I don't need an Imperial.

Very truly yours,
— — —, M.D.

Report from The Duke University Poison Control Center

ATROPINE (BELLADONNA, STRAMONIUM)

JAY M. ARENA, M.D., *Director*

It is a rare home that does not have at least one preparation containing atropine or some other belladonna derivative in the medicine cabinet. These alkaloids are widely used for ophthalmic, cutaneous, rectal and gastrointestinal conditions, and the effects of overdosage are often not readily recognized.

Although infants with gastrointestinal colic appear to tolerate unusually large therapeutic doses, they (and retarded children in general) are ordinarily quite sensitive to atropine. Thus intoxication may follow if, through error, eye drops are instilled in the nose. Severe toxic symptoms may also occur when atropine or scopolamine is substi-

tuted for the weaker drug homatropine. Finally, accidental ingestion, eating berries or seeds containing belladonna alkaloids as in the Jimson weed, may cause poisoning. While all parts of this plant are poisonous, the seeds are especially toxic since they contain scopolamine and hyoscyamine as well as atropine. Attempts at suicide, or rarely, hypersensitivity, have produced their share of acutely ill patients, but extremely few deaths.

The fatal dose of atropine is not known, although 10-20 mg. in children and about 100 mg. in adults have been estimated as lethal. Wide variation in tolerance is known to exist, however, and patients survived ingestion of as much as 1 Gm. of the drug.

The signs and symptoms of atropine poisoning develop quickly, and have vividly been described as "Hot as a hare, blind as a bat, dry as a bone, red as a beet, and mad as a hen." The first manifestation is an almost immediate sensation of dryness and burning of the mouth. Talking and swallowing become difficult or impossible. There is intense thirst. Blurred vision and marked photophobia reflect pupillary dilatation and loss of accommodation. The skin becomes flushed and dry. Tachycardia and fever develop, the temperature sometimes rising to the alarming height of 42.8 C. (109 F.) in infants. The heart rate, however, may not rise unduly in infants and old people. The desire to void is present, but there is difficulty in doing so.

These signs and symptoms are often accompanied by marked confusion and muscular incoordination. Mania, delirium, and frankly psychotic behavior may develop and continue for hours or days. A rash may appear, followed by desquamation especially in the region of the face, neck, and upper part of the trunk. Circulatory and respiratory collapse occur with more severe overdosage.

The diagnosis of atropine poisoning is not always easy, because the victim is frequently mistaken for a psychotic. In children, the marked flush and high temperature suggest

the onset of an exanthematous infection. Diagnosis is usually made on the history of drug ingestion together with the confirmatory signs and symptoms. Injection of 10-30 mg. of methacholine may be used as a pharmacologic test of intoxication. Failure to produce moistening of the mucous membranes of the mouth, lacrimation, sweating, and gastrointestinal hyperactivity helps to confirm the impression of an overdose of atropine or a belladonna alkaloid. A useful biologic test is to place one drop of the patient's urine in a cat's eye. If atropine is being excreted, mydriasis promptly occurs in the cat.

The treatment of atropine poisoning is mainly symptomatic: no specific antidote is available. If a patient is seen almost immediately after ingesting the drug, the stomach should be lavaged preferably with a 4 per cent solution of tannic acid. This measure must be taken at once if it is to accomplish anything, because atropine is rapidly absorbed from the gastrointestinal tract.

The patient should be placed in a darkened room to avoid irritation of the eyes, or a miotic may be instilled. Small doses of pilocarpine are useful for its parasympathomimetic effect and for improving the visual disturbance. The increased body temperature, which may be a severe problem in children, is treated with ice packs and sponging. Oxygen is indicated if respiration is inadequate, and a respirator may be required. For the manic patient or the occasional patient in convulsions, small doses of barbiturates, chloral hydrate, or paraldehyde are recommended; large doses are contraindicated because they depress respiratory action. Occasionally an indwelling catheter is necessary, if the patient has difficulty in initiating micturition. Pilocarpine in 10-15 mg. doses or methacholine in 10-30 mg. doses can alleviate the dryness of the mouth, which may be the most annoying symptom.

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PROPAGANDA FOR THE KING-ANDERSON BILL

On Friday, April 13, a significant meeting was held in Chapel Hill. It had been announced in a letter from Mr. R. Mayne Albright, which was sent to several hundred North Carolinians. The letter is quoted in part:

The White House has asked that North Carolina hold a meeting so that a nationally-known speaker may present President Kennedy's program for Health Insurance through Social Security, in the hope that those attending the meeting will better understand the program and want to support it and present it to their own organizations and communities.

As evidenced by the March 27th endorsement from prominent American medical doctors, the President's program is gaining widespread support as it becomes better understood and publicized. As part of a nationwide

series, this meeting in North Carolina is intended to provide a briefing and background material for North Carolinians. The meeting is not planned as a public assembly but an invited group of influential citizens for study and discussion of this important public program.

A paragraph was added giving the location of the meeting.

Room 104 in Peabody Hall was filled to overflowing. In his opening remarks, Mr. Albright stated emphatically that the meeting had been called for the sole purpose of enlisting support for the Kennedy program for health insurance through social security; that only questions asking for information about that bill would be answered; and that no speeches against it would be allowed.

The "nationally known speaker," Mr. Philip Desmairais, "deputy assistant secretary of the United States Department of HEW," presented a very plausible case for medical care of older people under the social security program. He began with the expected complimentary remarks about North Carolina, but one opening statement was open to rebuttal: that he came "to exchange information and to provide information." Before the meeting was over, it became obvious that his mission was to *tell* his audience—not "exchange information in explanation" of the bill.

He began by stating that within the past decade the cost of drugs and prescriptions had increased by 18 per cent, physicians' fees by 30 per cent, and hospital room rates by 93 per cent. "For a variety of reasons," he said, "hospital costs are most in need of help through taxes." (Apparently his tongue slipped when he said "taxes" instead of "contributions," or "social insurance.") "The real issue in medical care of the aged is hospital costs." (Note that he made no comparisons of the costs of housing, food, raiment, nor even the cost of government.)

Then Mr. Desmairais proceeded to outline the working of the King-Anderson Bill, which is too familiar to medical men to need elaboration. His was a picture of a panacea.

Then, as a surprise, Mr. Albright recognized Mr. Arthur Larson, Director of the World Rule of Law Center of Duke, former

Under-secretary of Labor in the Eisenhower administration. Mr. Larson made an argument for the social security approach to medical care of the aged, which was quite convincing because he evidently was sincere in believing that the King-Anderson Bill is not an entering wedge for socialized medicine, and that it is the best way of financing the cost. His advocacy shadowed that which one would have expected from Aneurin Bevin for the British Health Service. One can hardly doubt that he believes in a brand of socialism.

Most (28 to 2) of the questions asked indicated disapproval of the proposed bill, but these were answered with half-truths, evasively, or ignored. A medical student who said that he expected to be a general practitioner asked about the Kerr-Mills Act, but was rebuked by the moderator for attempting a debate. At another point Mr. Desmairais was questioned on his declaration that in the higher income brackets presently health insurance is fully deductible at the expense of the Federal Treasury's loss, but when challenged, persistently stuck by his erroneous statement.

A pertinent unasked question was "Who is paying for this propaganda, aimed at over-awing our congressmen into voting for the social security method of providing medical care?" Mr. Albright's letter stated that the meeting is "part of a national series," and Mr. Desmairais said that this was his fifth such meeting. It is certain that he is not paying his own expenses, and almost equally certain that the taxpayers are. Has President Kennedy the moral or legal right to use tax money for political propaganda through our Civil Service? We think Congress has given no such power or appropriation.

When the speaker said that the Kerr-Mills Act had been adopted by only 25 states and that it had cost the states more than they could afford, the question was asked if he thought the taxpayer found it easier to pay federal than state taxes. This question was evaded by the subterfuge of calling the social security tax a "contribution," or "social insurance." Even Mr. Larson

quoted a U. S. Supreme Court decision holding social security payments to be taxes so out of context as to imply that social security deductions are insurance rather than taxes.

Those in attendance were urged to write their congressmen. Doubtless many, if not most, of them will do so. They were given handfuls of literature favoring the social security approach, and asked to become favorable speakers for the "President's" program—the King-Anderson bill.

Time is of the essence in the fate of this legislation. It is to be hoped that a great many doctors will write their congressmen to protest the social security approach and to approve the Kerr-Mills Act.

* * *

THE FORTY-ONE "PROMINENT AMERICAN MEDICAL DOCTORS"

A sentence in Mr. Mayne Albright's letter of invitation to the recent meeting held in Chapel Hill warrants special comment: "As evidenced by the March 27th endorsement from prominent American doctors, the President's program is gaining widespread support as it becomes better understood and publicized."

While many, if not most, nonmedical persons were probably impressed by this statement, no doctor who has kept up with the steady drive over the past quarter-century to increase government control of medicine was any more surprised to see most of the 41 names on the list of physicians endorsing the President's program than he would have been to hear that Walter Reuther and David McDonald approved President Kennedy's stand on raising the price of steel. The list was reminiscent of the Physician's Forum founded by the late communistic Dr. Ernst Boas and of Michael Davis's Committee for the Nation's Health. Not one of the 41 is a private practitioner of medicine. The fact that 27 of the 41, however, are members of the A.M.A. refutes the argument that it is an undemocratic organization controlled by a hierarchy. Dr. Marjorie Shearon, in her news letter, "Challenge to Socialism," for April 5, published the list

of endorsing physicians, and characterized them in one paragraph:

Every one of these men held minority views about the practice of medicine. They were, as a group, believers in salaried service medicine as against fee-for-service; group practice as against solo practice; Government compulsion as against private practice and voluntary insurance; a Socialist Government as against our Republic.

The average doctor will not need to be informed about the unrepresentative nature of this committee—but he should do his best to inform patients.

* * *

MEDICAL CARE AND SOCIALISM

An editorial in the *Mobile* (Alabama) *Register* for March 23 quotes Congressman Curtis of Missouri as saying that it is "an old adage in jury trial work that when you have a weak case, try the opposing counsel . . . by these standards, the promoters of the King-Anderson bill have a weak case, because to date most of their efforts have been spent in trying the A.M.A., the health insurance industry and other of our private health institutions who are opposing the bill."

The *Twin City Sentinel* for March 27, in accord with Mr. Curtis' statement, accused the doctors of "tampering intemperately with the truth" in pointing out that the bill would lead to socialized medicine. Dr. Louis Shaffner did such a superb job in replying to this charge that his letter to the editor is reproduced in full in the Correspondence section of this issue. It will help our readers inform their patients of the real danger in the King-Anderson type of legislation.

* * *

LET'S TEMPER MERCY WITH JUSTICE

For many years accidents have been among the leading causes of death in the nation. In the age group between the late 'teens and the early twenties, they are the leading cause of death. Unfortunately, the public attitude toward highway safety has been too nearly like that toward the weather—marked by much talk, but little action.

An article in the *Winston-Salem Journal-Sentinel* for February 18 by Chester Davis,

"Our Errant Drivers and Erratic Courts," is really eye-opening. Mr. Davis spent much time for three months in going all over the state to investigate the local courts, especially those handling traffic cases. As a result of his investigation, he was forced to conclude that there was great room for improvement in these lower courts. Numerous cases were cited as proof.

For example, in the Smithfield District Recorder's Court, a man was tried for driving 115 miles an hour in a 60-mile zone. The officers chased him through Smithfield and finally stopped him $4\frac{1}{2}$ miles beyond the city limits. The judge reproved the officers for making an arrest outside their jurisdiction, disregarded the need for their testimony as to his speed, and ruled that the man was "not guilty."

In discussing the defects in our state's local courts, Mr. Davis pointed out: "Our inferior courts are severely penalized by a lack of competent personnel." Many of the judges have no legal training whatever, for "No qualifications are set for the judges in our courts." Mr. Davis cites as an example of inefficiency that a lower court judge—who still holds that office—after a highway patrolman swore that a driver had run by a stop sign and the man denied the charge, decided the case by flipping a coin, saying "Heads he's guilty and tails he's not guilty." The coin fell with tails up, and the defendant was released.

Another weakness of the system is that in many instances the judges are elected by popular vote. They know that the people who voted them in can vote them out.

The most common criticism of inferior courts is that "The court grants continuance after continuance until the case is worn out. The witnesses disappear and then the case disappears with them."

Mr. Davis is fair-minded enough to admit that the courts cited "are not typical of all the inferior courts of North Carolina. But the disturbing fact is that these courts, in many respects, come nearer representing the general rule than they do the isolated exception."

It would be hard for any intelligent and patriotic citizen to disagree with Mr. Davis'

concluding sentence: "If there is in this world any convincing evidence for the need of a thorough-going reform of North Carolina's inferior court system, it is richly provided by courts such as these."

While few will deny that justice should be tempered with mercy, there is danger of carrying this principle to extremes. When Abraham Ribicoff was governor of Connecticut, he demonstrated that many lives could be saved by emphasizing justice rather than mercy. Why cannot North Carolina profit by Connecticut's lesson?

* * *

PRE-PATENT AGREEMENTS

In our free economy, the necessity for companies to meet vigorous competition results in the continual invention of new and better products. At times, though, necessity—that proverbial mother of invention—gives birth to identical twins. Often two or more companies will independently and almost simultaneously invent the same product. Which one of them, then, is really first and entitled to receive the patent? To avoid lengthy and expensive "patent interference" suits, the companies involved today often resolve the question of priority by negotiation, agreeing beforehand that both will be left free to sell the compound, one as owner of the patent and the other as licensee.

Pre-patent agreements are the usual method used to settle patent disputes out of court. They are perfectly legal. They are, in fact, encouraged by the Patent Office. In 1960, 80 per cent of the patent interferences settled were disposed of before final hearing, many of them by pre-patent agreements.

Senator Kefauver, however, apparently believes that the traditional pre-patent agreement, although legal for other industries, represents a form of conspiracy when engaged in by the prescription drug industry. Therefore, one of the provisions in the recently introduced Kefauver-Celler Bill would make it illegal for drug companies to arrive at these agreements. If the bill passes, it will in effect compel drug companies to fight each other through Patent Office or court proceedings. As a result, im-

portant new drugs will probably be withheld from the public. In all likelihood no contestant in an interference suit would market the yet-to-be-patented drug until the case had been decided.

Take the example of the drug prednisone, a significant advance in the treatment of arthritis and other rheumatic diseases.

Prednisone has yet to receive a patent. Since 1955, however, it has been manufactured and marketed under licensing agreements by several companies. If the Kefauver-Celler Bill had been law in 1955, prednisone might still be only a laboratory victory rather than an available therapeutic agent. The same could be said of other important drugs.

Senator Kefauver claims that forbidding drug companies to make pre-patent agreements "would restore free competition in drug patents." Therefore, he concludes, "small manufacturers can market their drug products, competition will flourish and consumers will benefit from lower prices."

Actually, far from helping small companies, the bill would discriminate against them. Fighting every patent interference to the bitter end would be hard on everybody; but the larger companies, with greater financial resources, could weather it better than the small. Interference proceedings are by far the most technical and complicated part of Patent Office procedure. "Conscientious counselors hesitate long," wrote patent specialist J. F. Robb, "before committing clients to this class of litigation."

In addition to delaying the introduction of new drugs, this provision of the bill would certainly discourage research. Few innovations or discoveries are so novel that they don't touch upon areas in which other patents are pending. Therefore, the chances of an interference are high. But since there is no way of knowing, until a patent application is filed, whether an interference will occur, the only safe rule would be: Stay out of any research that competitors might possibly be working in.

Considerable dangers to the economy and public health are inherent in this attempt to destroy a useful and time-honored method for settling patent disputes.

Correspondence

IS THE KING-ANDERSON BILL SOCIALISM?

To the Editor:

Because I believe that the enclosed letter to the editor of the Twin City Sentinel (Winston-Salem) will be of interest to the doctors of this state, I would like to see it published in an early issue of the NORTH CAROLINA MEDICAL JOURNAL.

Dear Sir:

In your editorial (of March 27th) regarding medical care for the aged through Social Security you accuse both sides of misinforming the public, and the American Medical Association of excessive zeal in its fight against the Bill. Specifically, you accuse the doctors of "tampering intemperately with the truth" in pointing out that the Bill would lead to socialized medicine. I must disagree with you and defend the AMA and the doctors generally for the following reasons:

1. The proposed King-Anderson Bill (HR 4222, S909, and similar to the last session's Forand Bill) in its present form provides for a compulsory tax on one group, the currently employed, to underwrite government-controlled health care, not for themselves, but for another group, those over 65, regardless of need, who never have and never will pay that tax.

2. How is it government-controlled? By requiring hospitals to have a contract with the Secretary of Health, Education and Welfare, according to specific provisions and "such other conditions of participating as the Secretary may find necessary."

3. How is that socialized medicine when the Bill provides for free choice of physician and hospital? Free, "except as otherwise specifically provided," free choice only in that the patient must choose a hospital that has such a contract with the Secretary; and free choice only in that his doctor must be on that hospital staff and cannot prescribe drugs other than those approved by the Bill, nor keep his patient in a hospital bed longer than a "hospitalization utilization committee," approved by the Secretary, thinks is reasonable "as may be provided by regulations" promulgated by the Secretary.

4. But would not the man being taxed eventually be eligible for benefits at 65 just as he will be eligible for cash benefits under current law? Yes, but with this glaring and basic difference. He will have **free** use of his cash, for food, clothing, shelter, fishing tackle, medicines, anything. But he will have **no choice** on medical benefits. There will be no cash surrender value if he does not want or need the benefits. He is limited by regulations and contracts made by the Secretary of Health, Education and Welfare, and

the Secretary handles the money.

Senator Sam Ervin, Jr. has publicly voiced the same interpretation in saying: "One serious problem confronting the American people and the Congress is whether or not they are going to depart entirely from the original Social Security concept that a man should be free to handle his own funds."

If we would link medical benefits to Social Security, it would be just as logical to offer food, shelter and clothing to all over 65. All people need these all the time.

To me, this Bill provides socialized medicine for a segment of our people. Where can it lead from there? I quote from four supporters of the Bill:

Ex-Congressman Forand, who first introduced such a Bill linked to Social Security, admitted: "If we can only break through and get our foot inside the door, then we can expand the program after that."

A brochure distributed by the Communist Party of Illinois has stated: "With all its present limitations the Forand Bill opens the door toward complete hospital, medical and surgical services for the aged, and ultimately for the whole population."

AFL-CIO lobbyist Ted Silvey stated that if this type legislation is passed, "We will come back for more and more—and more."

"New America," the official publication of the Socialist Party has stated: "The Forand Bill will not be paid for on insurance principles, according to factors of estimated risk. It will be paid for through the tax mechanisms of Social Security.—Once the Bill is passed, this nation will be provided with a mechanism for socialized medicine capable of indefinite expansion in every direction until it includes the entire population. And it is already evident that there will be massive pressure in favor of such expansion." Norman Thomas said: "—it paves the way for socialized medicine."

How can you say the doctors are overzealous or are tampering with the truth?

Is not this administration sponsored Bill socialized medicine for older citizens, and would it not lead to socialization of all medicine? The Socialists, themselves, say so and want it.

The doctors say so, and don't want it. We cannot be too zealous in trying to tell the truth to all—why we oppose this Bill in principle and in particulars, why we support the present Kerr-Mills law for aid through the states to those who need it, and why we support voluntary health insurance and pre-payment plans for the non-needy aged.

We are only trying to do what Thomas Jefferson and you would have us do—"Inform (the people's) discretion by education."

—LOUIS SHAFFNER, M.D.

Bowman Gray School of Medicine
Winston-Salem

MEDICATION BY NURSES

A medical legal question sometimes raised is whether a physician is liable for damage resulting from medication or blood given by a nurse. The answer to this question will be found in this issue, in a letter from Attorney General Bruton to Mr. John Anderson, our State Society attorney.

While this letter should be gratifying to many physicians, it should be noted that the physician is responsible for the procedure he prescribes, and for making sure that the nurse is competent to use the proper technique in giving the medication.—*Ed.*

Mr. John H. Anderson, Jr.*

Attorney at Law

North Carolina National Bank Building
Raleigh, North Carolina

Dear Mr. Anderson:

In conference today, as Attorney for the North Carolina Medical Society, you inquired if a registered nurse may lawfully start and administer blood or other intravenous medication or injections to patients pursuant to lawful orders prescribed by a licensed physician regardless of whether the prescribing physician is actually physically present.

GS 90-158.8 contemplates and recognizes that professional registered nurses are authorized to carry out "... treatments and medications as prescribed by a licensed physician ..."

Our Supreme Court has not passed upon the question presented here; however, courts in other jurisdictions have done so. It has been held that under a lawful order a registered nurse may administer anesthesia (*Chalmers-Frances v Nelson*, 6 Cal. 2d 402), administer intravenously (*Benevolent Asso. v. Fowler*, 210 Miss. 578), inject dye into the veins of a patient in preparation for X-ray (*Hosp. Corp. v. Curry*, 173 VA. 136).

In "Nursing Practice And The Law" by Lesnik and Anderson (2d p 278) will be found the following:

"The legal authority to engage in the area of nursing practice that primarily is a medical

area converted into one of nursing by medical order plus direction and/or supervision can be based either upon (1) custom or usage, or (2) statute."

You informed me that it is the custom and usage in North Carolina, as stated with approval by the North Carolina Medical Society, for registered nurses to administer blood or other intravenous medications to patients pursuant to lawful prescription by a licensed physician.

From the above, it is my opinion that a registered nurse under authority of an order or prescription of a licensed physicians, either oral or written, and in the presence or absence of the prescribing physician, may lawfully start and administer blood or other intravenous medication or injections to patients.

The liability of a nurse to the patient for damages in the case of adverse results would depend upon whether or not the nurse was negligent in the administration of the intravenous injection.

Yours very truly,

T. W. Bruton

State of North Carolina
Attorney General
Department of Justice

INFORMATION ON DR. BUZZARD SOUGHT

To the Editor:

In the past year several newspapers in North Carolina have run short pieces concerning a well known South Carolina root doctor, Dr. Buzzard. As part of my studies in the Folklore Program at Indiana University I am doing a research paper on the legends which are now told about Dr. Buzzard. If any of your readers have biographical information about Dr. Buzzard, if anyone knew him, or knows stories about him, I would very much appreciate it if he would write to me at the following address so that I might include this information in my paper.

Mrs. Donald J. Smetzer
Folklore Program
Library 41
Indiana University
Bloomington, Indiana

*Attorney for the Medical Society of the State of North Carolina.

Bulletin Board

COMING MEETINGS

North Carolina Heart Association, Annual Meeting and Scientific Session—Sir Walter Hotel, Raleigh, May 24.

Tri-State Medical Association of the Carolinas and Virginia, Annual Meeting—Carolinian Hotel, Nags Head, June 11-13.

Mountaintop Medical Assembly—Waynesville, June 21-23.

Seaboard Medical Association, Annual Meeting—Nags Head, June 21-24.

International Symposium on Opportunist Fungus Infections—Duke University Medical Center, June 28-30.

Duke Medical Postgraduate Course—Morehead-Biltmore Hotel, Morehead City, July 16-21.

New Hanover County Medical Symposium—Wilmington, July 28.

American Ophthalmological Society Meeting—The Homestead, Hot Springs, Virginia, May 28-30.

American Gynecological Society Meeting—The Homestead, Hot Springs, Virginia, May 31-34.

Eleventh Annual Symposium for General Practitioners on Tuberculosis and Other Pulmonary Diseases—Saranac Lake, New York, July 9-13.

NEW MEMBERS OF THE STATE SOCIETY

The following physicians joined the Medical Society of the State of North Carolina during the month of March.

Dr. Robert Calhoun Jordan, Jr., P. O. Box 1007, Sanford; Dr. Stewart Lee Mooring, Rutherford Hospital, Rutherfordton; Dr. Robert Barclay Ragland, N. C. Memorial Hospital, Chapel Hill; Dr. Victor Wang Ta Ng, Robersonville Clinic Robersonville; Dr. Henry L. Stephenson, 615 E. 12th Street, Washington; Dr. William Allen Reid, 216 E. Main Street, Belhaven; Dr. William Clinton Talley, 1008 N. Ellis Avenue, Dunn; Dr. Walter Eugene Sharpe, Jr., Box 126, Lake Waccamaw; Dr. Robert Lewis Poston, Box 223, Winfall.

Dr. Eugene A. Edwards, Box 778, Tryon; Dr. Joseph Charles Placak, Jr., Route 1, Columbus; Dr. Joseph Ralph Beesley, 409 E. Marion Street, Shelby; Dr. Clark William Jennings, 912 2nd Street, N. E.; Dr. William Joseph Riley, Catawba General Hospital, Newton; Dr. Albert Leon Chason, Rex Hospital, Raleigh; Dr. John Breaks Scroggin, Box 98, Drexel; Dr. Jack N. Drummond, Grantham Medical Clinic, Goldsboro; Dr. Louis Hamman, 219 N. Center Street, Hickory; Dr. Teodoro Braganza, 605 18th Street, Butner; Dr. Thomas Brevard Templeton, 331 Colony Road, Statesville.

Dr. Ruth T. Sanders, Blackwelder Hospital, Lenoir; Dr. Henry Griffin Bullwinkel, Medical

Arts Building, Lenoir; Dr. Bruce Frederick Grotts, 420 N. Spruce Street, Winston-Salem; Dr. John Myers Blount, 210 Cabarrus Building, Kannapolis; Dr. David Collins, Ardsley Road, Concord; Dr. James Jerome Pence, Jr., Box M, Wagram; Dr. S. L. Shaver, Breeland Building, Belmont; Dr. Robert Wilfong Whitener, 1305 N. Elm Street, Greensboro; Dr. James Barnes Wyngaarden, Duke University Medical Center, Durham.

NEWS NOTES FROM THE

DUKE UNIVERSITY MEDICAL CENTER

New warnings which are currently making their debut on the labels of household products sold throughout the United States promise to save untold numbers of children from agony and death.

Dictated by a federal law that became effective in February, the new warning will appear on every product that can be harmful to human beings. These products include many polishes, bleaches, detergents, solvents, paints, cleaning compounds, and other agents commonly used around the house.

The new labels carry warning statements such as "DANGER," "POISON," or "Caution." Instructions for safe use are given, together with emergency first aid measures. Finally, the labels state the chemical names of harmful ingredients so that physicians can start effective treatment promptly if an accident occurs.

Dr. Jay M. Arena, head of the Poison Control Center at Duke Hospital, termed the law "one of the greatest preventive and educational steps yet taken in the fight against accidental poisoning."

Dr. Arena, a member of the American Medical Association's Toxicology Committee that was instrumental in framing the Hazardous Substances Act, emphasized, however, that the law behind the new labels can protect a family only when parents read and heed the labels.

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A new grant of \$12,560 has been made to Duke University by the Office of Vocational Rehabilitation, U. S. Department of Health, Education and Welfare, to support continuing research on artificial noses and ears.

* * *

Dr. John W. Moore, associate professor of physiology at the Duke University Medical Center, has been awarded a \$60,000 fellowship by the National Neurological Research Foundation, Washington, D. C.

Dr. Moore currently is conducting research directed toward learning more about the movement of ions (electrically charged particles) in nerve activity.

* * *

A recently established center for cystic fibrosis treatment, research and training at the Duke University Medical Center has been granted one-

year financial support of \$24,734 by the National Cystic Fibrosis Foundation. The new grant brings to a total of \$38,734 the funds allotted to Duke by the Foundation since the center was founded last August.

The center is headed by Drs. Alexander Spock and Susan Dees of the Duke pediatrics faculty and is one of 25 now in operation over the United States with support from the National Cystic Fibrosis Foundation.

NEWS NOTES FROM THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE

Distinguished service awards were presented to four physicians and one layman last month by the alumni association of the University of North Carolina School of Medicine.

The layman was State Rep. John W. Umstead, Jr., of Chapel Hill, chairman of the State Hospitals Board of Control. Umstead is often referred to as "Mr. Mental Health of North Carolina."

The four other men to receive the awards were Dr. William N. Hubbard of Ann Arbor, Michigan, dean of the University of Michigan Medical School; Dr. Augustus S. Rose, chief of the Division of Neurology at the University of California at Los Angeles School of Medicine; Dr. Samuel F. Ravenel, chief of pediatric services at Cone Memorial Hospital in Greensboro; and Dr. James P. Rousseau, clinical professor of radiology at the Bowman Gray School of Medicine in Winston-Salem and past president of the North Carolina Medical Society.

In other action at the annual dinner meeting, the medical alumni group installed Dr. Harry L. Brockmann of High Point as president. He succeeds Dr. Hugh A. McAllister of Lumberton.

Earlier in the day the group elected its new officers for 1962-1963. Dr. Raymond L. Pittman of Fayetteville was chosen president-elect. Dr. Charles Graham of Wilmington was chosen vice president, and Miss Virginia Dunlap of Chapel Hill was named secretary.

Chosen as counsellors were Dr. L. E. Metcalf of Asheville, Dr. Corbett Howard of Goldsboro, and Dr. Mary Margaret McLeod of Sanford.

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Dr. Leonard Palumbo, associate professor of obstetrics and gynecology, lectured recently before a meeting of the Kansas City Gynecological Society. His subject was "Cancer of the Cervix."

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Of all North Carolinians entering medical schools in this state during the current academic year, more than one half entered the University of North Carolina School of Medicine.

This and other data concerning medical schools enrollment is presented in the sixty-first annual report of the Council on Medical Education and Hospitals of the American Medical Association.

This past September 130 residents of North Carolina began medical studies. Of these 103 en-

tered the three medical schools of North Carolina, U.N.C., Duke, and Bowman Gray.

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The annual Phi Chi Medical Fraternity Lecture was presented at the University of North Carolina School of Medicine March 29. The guest speaker this year was Dr. James B. Wyngaarden of the Duke University School of Medicine. An associate professor of medicine and bio-chemistry, Dr. Wyngaarden spoke on "Hemoglobinopathies and Other Inborn Errors of Metabolism."

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Drs. Luther M. Talbert and A. Stark Wolkoff, both of the Department of Obstetrics and Gynecology, participated in the Chicago meeting of the American College of Obstetrics and Gynecology April 1-4.

Dr. Talbert spoke on "Rupture of the Uterus."

Dr. Wolkoff gave three presentations. They were: "Third Trimester Bleeding," "Placental Exchange Studies," and "Experimentally Induced pH and other Metabolic Changes in the Intrauterine Fetus."

NEWS NOTES FROM THE BOWMAN GRAY SCHOOL OF MEDICINE OF WAKE FOREST COLLEGE

Dr. Courtland H. Davis, Jr., associate professor of neurosurgery, was elected secretary of the Neurosurgical Society of America at a recent meeting of the society in Biloxi, Mississippi.

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Dr. John A. Gergen joined the faculty April 1 as assistant professor of physiology and pharmacology. He comes to the medical school from the National Institute of Mental Health, Bethesda, Maryland. Dr. Gergen was graduated, **magna cum laude**, by Yale University in 1953 and received the M.D. degree from Harvard Medical School in 1957. His internship and residency programs were completed at the Duke University Hospital. In 1959, Dr. Gergen received an appointment as research associate in the Laboratory of Neurophysiology, National Institute of Mental Health. He also has served as instructor in the U. S. Department of Agriculture Graduate School and as senior assistant surgeon with the U. S. Public Health Service.

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Dr. Richard B. Patterson has been awarded a Markle Scholarship in Medical Science. The appointment by the John and Mary Markle Foundation of New York provides a \$30,000 grant, paid at the rate of \$6,000 a year, to supplement the Scholar's salary and aid his research. Dr. Patterson is the first member of the Bowman Gray School of Medicine faculty to receive a Markle Scholarship since 1955. Other Markle Scholars at the medical school are Drs. Manson Meads, Ernest H. Yount, and Alanson Hinman.

Dr. James F. Glenn, associate professor of urology, is the recipient of two grants from the National Cancer Institute. The grants, to run concurrently, will total in excess of \$52,500. Dr. Glenn will receive \$7,500 per year for three years to support his work in a cooperative drug evaluation program. He will receive \$6,000 per year for five years for the purpose of establishing a protocol for the evaluation of bladder cancer treatment. In addition to the bass stipends for the two projects, Dr. Glenn will receive an additional expense payment for each patient treated in the two studies.

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Three members of the Department of Anatomy presented papers at the annual meeting of the American Association of Anatomists in Minneapolis, Minnesota. Dr. Walter J. Bo, associate professor of anatomy, read a paper on "Synthesis of Glycogen in the Uterus." Dr. Norman Sulkin, professor of anatomy, and Dr. Charles E. McCreight, assistant professor of anatomy, presented papers on "Effects of Unilateral Nephrectomy in Hypophysectomized Rats."

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Dr. Isadore Meschan, professor of radiology, gave three lectures at the Dallas Southern Clinical Society's thirty-first annual Spring Clinical Conference in Dallas, Texas. He spoke on "Basic Principles in Radiologic Diagnosis of Chest Disease; Basic Principles in Studies of Abdominal Films Without Contrast Media; and Radiologic Considerations of Joint Diseases."

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Dr. C. Nash Herndon, professor of preventive medicine and medical genetics, presented a paper on the "Scope of Genetic Disease, Present and Future" at the eighth annual forum of the Woman's Medical College of Pennsylvania in Philadelphia.

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Dr. James F. Martin, professor of radiology, has accepted a three-year appointment on the Commission of Education of the American College of Radiology.

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Dr. Robert L. Tuttle, associate professor of microbiology and immunology, presented a paper at the National Institutes of Health meeting on immunology and pathogenesis of tuberculosis in Bethesda, Maryland. The title of his paper was "Factors Involved in the In Vitro Cultivations of Phagocytic Cells Derived from the Peritoneal Cavity of Guinea Pigs."

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Dr. Felda Hightower, associate professor of surgery, presented a paper on "Methods of Approach to Low Lying Lesions in the Rectum" at the Southeastern Surgical Congress in Louisville, Kentucky.

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Dr. J. R. Bobb, associate professor of physiology and pharmacology, was a guest lecturer at

the University of Puerto Rico Medical School. He spoke on "Medical Students' and Physicians' Responsibilities in Disaster" and again on "Counseling Medical Students and Young Physicians in Regard to Federal Services."

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Dr. Robert W. Prichard, professor of pathology, spoke on "Interrelationships Among the Lymphomas" in a seminar on lymphomas at the New York Medical College.

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Dr. Frank R. Johnston, assistant professor of surgery, was a panel participant on the subject "Selection of Patients for Open Heart Surgery, Preoperative Evaluation, and Methods of Diagnosis" at the Southeastern Surgical Congress in Louisville, Kentucky.

NORTH CAROLINA BOARD OF MEDICAL EXAMINERS

The North Carolina Board of Medical Examiners has announced the following schedule of meetings:

Sir Walter Hotel, Raleigh, June 18-21—written examination; applicants for license by endorsement of credentials to be interviewed.

Mayview Manor, Blowing Rock, July 27—applicants for license by endorsement of credentials to be interviewed.

NORTH CAROLINA HEALTH COUNCIL

A Conference on Health Careers will be held May 22 in Winston-Salem under the sponsorship of the North Carolina Health Council.

In announcing this one-day meeting, Mrs. Marie B. Noell, Raleigh, President of the Council, stated that its purpose is "to give help to all persons concerned with recruitment of health personnel." The conference theme is "Personnel for Progress—Meeting Our Growing Health Needs."

George Griffenhagen, Washington, D. C., Director of the Division of Communications of the American Pharmaceutical Association, will be the keynote speaker. His subject will be "The Challenge Ahead."

The Health Careers Conference is one of the activities of the N. C. Health Council in which some sixty health related organizations and agencies in the State have membership.

DIAGNOSTIC CLINIC FOR THE MENTALLY RETARDED

The North Carolina Hospitals Board of Control has announced the opening of a Diagnostic Clinic for the retarded at Murdoch School.

This facility is available to any North Carolina child or young adult suspected of retarded mental development. Any qualified physician, psychologist, Welfare Department, Public Health Department, or other child or family service agency

may refer patients to this clinic. It is not necessary that patients be candidates for admission to Murdoch School. Please make application for an evaluation appointment to: Director, Diagnostic Clinic, Murdoch School, Butner, North Carolina.

This clinic will provide a comprehensive medical, neurological, psychological, psychiatric and sociological evaluation of the patient. Serving as staff director and pediatric neurologist is Sam O. Cornwell, M.D., Ph.D., a diplomate of the American Board of Pediatrics.

Consultants are available to aid in the evaluation of patients with motor handicaps, hearing handicaps, visual handicaps, speech problems and special education problems. The Diagnostic Clinic has affiliations with specialists and training programs at the Universities of North Carolina and Duke.

A complete evaluation will require approximately one week's hospitalization at Murdoch School. Parents or guardians should plan to spend approximately two half days at Murdoch School, one at the time of admission to the clinic and one at the time of discharge from the clinic. Emphasis will be placed on helping parents to understand and accept the diagnosis and its implications, and on formulating practical plans for the care, education and/or rehabilitation of the patient.

Appropriate reports will also be furnished referring professionals or agencies. Follow up services will be provided as required, but it is hoped that arrangements for continuing services for most patients can be made with community facilities.

Laboratory, x-ray and electroencephalographic installations will be completed by the summer of 1962, but provisional arrangements to carry out these studies for the clinic as indicated are now available. The clinic has been seeing limited numbers of patients on a trial basis for several months but will now be able to offer somewhat expanded service to a greater number of patients. The clinic hopes to be able to see at least three new patients a week by the summer of 1962.

Charges for the comprehensive Diagnostic Clinic evaluation will be on a flexible scale, based on ability to pay, with a maximum charge of \$60.00, plus one dollar per day of hospitalization.

A.M.A. COUNCIL ON NATIONAL SECURITY

"Community Preparedness for Emergencies" will be the theme of the tenth annual National Conference on Disaster Medical Care in Chicago, June 23.

Sponsored by the Council on National Security of the American Medical Association, the one-day meeting at the Palmer House immediately precedes the opening of A.M.A.'s one-hundred and eleventh annual meeting.

This year's program, consisting of three sessions,

was developed and will be presented by the Division of Health Mobilization of the U. S. Public Health Service.

The keynote address, "Preparedness at the Community Level—An Urgent Goal," will be delivered by Luther L. Terry, M.D., the surgeon general of the U. S.

Additional information may be obtained by writing: Department of National Security, American Medical Association, 535 N. Dearborn, Chicago 10, Illinois.

AMERICAN MEDICAL WOMEN'S ASSOCIATION

The American Medical Women's Association extends an invitation to all women physicians attending the American Medical Association Annual Meeting in Chicago, to be their guests at a brunch on Sunday, June 24, 1962, at 11:00 A.M. at the Essex Inn.

"Medical Woman Power—Can It Be Used More Efficiently?" Will be discussed by a panel, with audience participation.

If you will be able to attend, please notify the American Medical Women's Association, 1790 Broadway, New York 19, before June 22.

UNITED HEALTH FOUNDATIONS, INC.

Establishment of United Health Foundations, Inc., a national organization which will serve as a coordinating body for local health foundations and other local health agencies supported by United Funds, has been announced by John B. Youmans, M.D., its president. Dr. Youmans is presently director, Division of Scientific Activities, of the American Medical Association. He was elected president of the new association in March.

United Health Foundations, Inc. will provide a national program for its members in the field of medical research and health education, Dr. Youmans said. It is a voluntary membership association and will not conduct any nationwide fund-raising or promotion drives. United Funds are now raising and spending a substantial sum each year on behalf of medical research and health education. Until UHF was established these programs were conducted either on a local basis or through the programs of numerous separate national health agencies. Desires to improve on both these methods spurred United Funds in several major communities to sponsor the formation of UHF, he explained.

In the areas of research, UHF will either allocate funds directly to research, or, where its members are conducting their own research programs, review them to insure that they meet suitable scientific standards, avoid duplication and invest in desirable research areas. In the health education field, it will act as a clearing-house and cooperative center for producing materials and will sponsor demonstration programs

in conjunction with significant local efforts in this field.

The UHF president expressed a strong personal belief in the need for greater cooperation among voluntary organizations in the health field. He said that UHF "will cooperate with any bona fide organization or group on matters of mutual interest."

Local health foundations in Boston, Massachusetts; Buffalo, New York; Canton, Ohio; North Carolina, Pittsburgh, Philadelphia, and the Detroit United Foundation served as the sponsoring organizations for UHF. In addition to Dr. Youmans, a 27-member Board of Directors and other officers were elected at a founding meeting held in San Francisco on March 14. United Health Foundations, Inc. has been chartered as a membership corporation in New York state and its national offices are in New York City.

AMERICAN COLLEGE OF CHEST PHYSICIANS

The American College of Chest Physicians will hold its five-day annual meeting at the Morrison Hotel, Chicago, June 21-25.

On June 25 there will be a joint meeting between the American College of Chest Physicians and the American Medical Association at McCormick Place, Chicago's new convention center.

For additional information, write Mr. Murray Kornfeld, Executive Director, American College of Chest Physicians, 112 East Chestnut Street, Chicago, Ill.

AMERICAN PUBLIC HEALTH ASSOCIATION

The American Public Health Association's ninetieth annual meeting, and the first in the South in 25 years, is scheduled for Miami Beach October 15-19. Registration, exhibits and press headquarters will be in the Hotel Fontainebleau.

Dr. Berwyn F. Mattison, executive director of the Association, said that sessions are expected to attract an attendance of more than 5,000, including non-members as well as members of the Association which is the largest professional society of public health personnel in the Western Hemisphere. More than 60 related health organizations will meet concurrently.

The Association's president, Dr. Charles Glen King, president of the Nutrition Foundation, will speak at the first general session on Tuesday evening, October 16.

Officers, in addition to Dr. King and Dr. Mattison, include Dr. John W. R. Norton, state health director of North Carolina, president-elect; Dr. D. John Lauer, medical director of International Telephone and Telegraph, New York, treasurer; and Dr. Leroy E. Burney, vice president of Temple University, Philadelphia, and former Surgeon General of the U. S. Public Health Service, speaker of the Governing Council.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

Applications for certification in the American Board of Obstetrics and Gynecology, new and reopened, Part I, and requests for re-examination in Part II are now being accepted. All applications and requests for re-examination are to be received in the Office of the Executive Secretary and Treasurer on or before the deadline date of **July 1, 1962**. No applications will be accepted after that date.

Candidates are urged to review the current Bulletin of the Board, which may be acquired by writing to the Executive Secretary, in order that they be well informed of the present requirements prior to submitting application.

After July 1, 1962, this Board will require a minimum of three (3) years of approved progressive Residency Training for admission to the examinations. After this date, training by Preceptorship will not be acceptable.

Diplomates of this Board are urged to notify the office of the Executive Secretary, 2105 Adelbert Road, Cleveland, Ohio, of a change in address.

JOINT BLOOD BANK COUNCIL

The basic document for voluntary accreditation of blood banks has been revised and is available for distribution, the Joint Blood Council has announced. "Standards for a Blood Transfusion Service," third edition, 1962, provides improved guidelines for evaluating and conducting an acceptable blood transfusion service in hospitals and community blood banks.

Copies may be obtained directly from the Joint Blood Council, 1500 Massachusetts Avenue, N. W., Washington 5, D. C., at \$1.00 each, payable with the order. A discount of 25 percent may be given on orders of 12 or more.

NATIONAL ASSOCIATION FOR PREVENTION OF ADDICTION TO NARCOTICS

A major effort to eliminate drug addiction as a national problem has been announced by leaders of the National Association for the Prevention of Addiction to Narcotics (NAPAN).

The program will consist of activities and projects in two major fields—public education and scientific research. The projects were developed by the organization during the past year—a year that has seen a growing national concern with the harmful effects of narcotic addiction on both its victims and the communities in which they live.

Formulation of the projects was only recently completed by the Steering Committees of the Medical Advisory Board and National Advisory Board of NAPAN, and the projects were officially approved by the two boards in March, at a special joint meeting.

WASHINGTON STATE MEDICAL ASSOCIATION

The physicians in Washington State are cordially extending an invitation to doctors throughout the country who plan to visit the Seattle World's Fair this September to coincide their trip with the seventy-third Annual meeting of the Washington State Medical Association in Spokane, September 16-19, 1962.

Three full days of scientific programs are scheduled including nationally known guest scientific speakers, medical television, specialty sessions and general sessions. For additional information on this outstanding state program and hotel reservations in Spokane and Seattle, contact the Washington State Medical Association 1309 Seventh Avenue, Seattle.

U. S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE

Strict quarantine measures make it unlikely that this country will have any outbreak of smallpox such as those occurring in Europe, say officials of the U. S. Public Health Service. They also note that there is a fairly high degree of immunization among the American population. The PHS recommends smallpox vaccination for children in the first year and just before entering school. **Booster shots for adults every three years are recommended.**

* * *

The cooperation of physicians is requested in obtaining patients with glycogen storage diseases for a study currently in progress at the Clinical Center, National Institutes of Health, Bethesda, Maryland.

Patients with deficient glucose-6-phosphatase are especially needed, but patients with the other types are also being studied. Preferably the diagnosis should be established as a result of enzymatic assays on liver biopsy tissue, but patients who fit the clinical criteria for glycogen storage disease would be considered also.

Hospitalization for a period of one to three weeks should be anticipated and various therapeutic measures would be evaluated.

Physicians who wish to have their patients considered for study should write James B. Field, M.D., National Institute of Arthritis and Metabolic Diseases, National Institutes of Health, Bethesda 14, Maryland.

VETERANS ADMINISTRATION

An uncommon but severe fungus disease, blastomycosis, is concentrated in the Carolinas, Virginia, and seven states bordering on the Mississippi River, Veterans Administration statistics indicate.

Distribution of the disease has been poorly defined in the past, and the VA figures give one of the best clues to date on where it is found.

The fungus causes skin ulcers, lesions in the lungs, bones, kidneys and other organs, and sometimes death.

Reporting at the recent VA-Armed Forces Research Conference in Pulmonary Diseases, Dr. John F. Busey of the Jackson, Mississippi, VA Center said 198 patients with blastomycosis were treated in VA hospitals during the 10-year period 1948-1958.

He said 146 or nearly three-fourths of the cases were reported from 10 states. North Carolina had the highest number—24, against 9 for the neighboring state of South Carolina, 8 for Virginia, and 18 for Tennessee. There were 25 deaths from blastomycosis among the 198 patients.

The distribution of cases by occupation supports the common belief that the fungus is picked up from the soil rather than passed from person to person, Dr. Busey said.

* * *

Dr. Timothy Takaro, associate chief of staff for research at the Veterans Administration hospital, Oteen, North Carolina, has been selected for a three-month Fellowship study at the Scientific Research Institute for Surgical Apparatus and Instruments in the Soviet Union.

* * *

Management of medical emergencies is the subject of a new book by Veterans Administration doctors.

Designed to keep pace with advances in medicine and to provide a ready reference source for physicians, the volume is published by W. B. Saunders Company as a VA Hospitals Number (March 1962) of The Medical Clinics of North America.

First Drug Effective in Prophylactic Treatment of Migraine and Cluster Headaches Marketed

The first drug found to be effective in the prophylactic treatment of migraine and "cluster" headaches was released to physicians throughout the United States on April 16 by Sandoz Pharmaceuticals. The drug has been tested during a three-year clinical trial period. The generic name of the drug, known in the clinical tests as UML-491, is methysergide maleate. Its chemical designation is 1-methyl lysergic acid butanolamide (trade name, Sansert).

The average daily dose is two to four tablets, each containing 2 mg, with one tablet taken at each meal. A three-week trial period is suggested. The drug is supplied in bottles of 50 tablets.

New Periodical For Medical Secretaries

A new twice-monthly publication for medical secretaries has been announced by the Bureau of Business Practice, a division of Prentice-Hall Inc., publishers of books and business services. First issue of the periodical, "M.S. for Medical Secretaries," appeared March 15, with a subscription list already running into thousands.

M. McQueen-Williams M.D., Ph.D., Director of the Eastern School for Physicians' Aides in New York, is contributing editor. It is his opinion that the work of a medical secretary has become so specialized that a perpetuating guide is required. "M.S." will also serve as a meeting ground for the exchange of new ideas in medical office practice.

Hospital Saving Association

A record-breaking high of \$18,835,871 in payments for the many services it handled in 1961 was reported yesterday by Hospital Saving Association, North Carolina's Blue Cross and Blue Shield Plan.

It was announced by E. B. Crawford, executive vice president of the non-profit association, that in the 26 years since it was founded the association has administered claims for North Carolinians of over \$145,700,000.

Upjohn Announces Withdrawal of Monase From Market

The Upjohn Company, in a letter mailed to physicians recently, has announced the withdrawal of its product Monase from the market. Monase, a psychic energizer or mood elevator, found useful in treating depressed patients, was first marketed in June, 1961.

The letter noted that in spite of the extensive pre-marketing animal and clinical studies which indicated a wide margin of safety, an occasional patient has developed a blood disorder called agranulocytosis in association with the administration of Monase. Because of this unforeseen and non-predictable occurrence, The Upjohn Company in cooperation with the Federal Food and Drug Administration is withdrawing Monase from the market.

Wyeth Licensed to Market Live Oral Polio Vaccine

Wyeth Laboratories has been licensed by the U. S. Public Health Service to market Type I and Type II live oral polio vaccine.

Simultaneously with its development of Types I and II vaccines, Wyeth has been working on Type III, the third type of live oral polio antigen needed to give full protection against the ancient crippling disease. The company expects to have a license covering its Type III vaccine in time to provide protection for the 1962 polio season.

Wyeth has several million doses of both Type I and Type II live polio vaccine on hand and is now in full scale production on both types. The firm plans to have a balanced inventory of some 60,000,000 doses ready for the 1962 polio season. If the company is licensed for Type III in time, that will be included in the total.

Wyeth Releases Film on Sterilization Techniques

Wyeth Laboratories, Philadelphia pharmaceutical manufacturer, has released a new 20-minute, 16-mm color, sound motion picture on "Sterilization Procedures for the Medical Office." The new film demonstrates the proper techniques for sterilizing and disinfecting medical instruments and supplies.

Produced by Wyeth in association with the American Association of Medical Assistants, the new film explains the processes used for sterilization, shows details of how they are applied and defines standards that must be maintained regarding wrapping methods and materials, length of exposure to sterilization, and other vital details. The film also discusses disinfection methods, pointing out when they should and should not be applied.

Loan prints of "Sterilization Procedures for the Medical Office" are available from the Wyeth Film Library, P. O. Box 8299, Philadelphia 1, Pa.

Measles Vaccine Under Study by Lilly

A killed-virus measles vaccine to which reactions were "practically nonexistent" performed remarkably well in last May's measles epidemic in Philadelphia, the Philadelphia Pediatric Society has been told.

At a meeting in the College of Physicians (March 13) six clinicians reported that measles was prevented in all children receiving three doses of the new experimental vaccine.

The physicians reporting were Dr. James E. Wheeler (who read the paper), Dr. Sherwood Salitsky, Dr. Harold Medoff, Dr. Felix E. Karpinski, Jr., and Dr. Albert R. Hunt, all of Philadelphia, and Dr. F. B. Peck, Jr., of Eli Lilly and Company, Indianapolis. The vaccine was developed at Lilly. It is not available to the public since it is still under study.

SK&F Awards Grants to Institutions

More than 300 agencies and educational institutions throughout the nation received grants totaling \$631,675 from the Smith Kline & French Foundation during 1961, the trustees have announced. Among the medical institutions was the Bowman Gray School of Medicine of Wake Forest College.

Last year's grants raised the amount distributed by the Foundation since its establishment in 1952 to \$4,657,898.

The Foundation is a charitable trust established by Smith Kline & French Laboratories, one of the nation's leading pharmaceutical firms. Its primary interest is medicine and medically related science. The Foundation supports work in four major areas—education, mental health, public charities and community development, and basic research projects.

Book Reviews

Medical Genetics 1958-60. By Victor A. McKusick and Contributors. 534 pages. Price, \$14.50. St. Louis: The C. V. Mosby Company, 1961.

This annotated review of this literature on medical genetics in 1958-1960 was previously published as three separate annual reviews in the *Journal of Chronic Diseases* and originated from the success of a journal club at the Johns Hopkins University School of Medicine. One expressed purpose of the volume is to provide clinicians with a critical resume of scattered genetic paper relating to their specialties.

The literature of each year is treated separately and the arrangement of references within each year is by organ systems. A subject index referring to numbered paragraphs within the next is provided. Some of the references cited in the text were inadvertently omitted from the lists of references for each year.

The volume would have been easier to use had the three years been combined. The literature reviewed most critically was, as might be expected, that reflecting the special interests of contributors. Occasional references to studies earlier than 1958 may prove useful to clinicians.

Classified Advertisements

American Board, preceptee or associate wanted. Active general surgical practice. Young man, completing training preferred. Position open January 1, 1963. Address all inquiries to John T. Lloyd, M.D., 111 Jolly Street, Louisburg, North Carolina.

DOCTOR'S OFFICE FULLY EQUIPPED—located on ground floor of active hospital. Excellent location for general practitioner. Much referred work may be expected for an ethical energetic man. Rent very reasonable. Located in Greensboro, N. C. If interested, reply to Mr. John W. Davis, 309 West Smith St., Greensboro, North Carolina.

In a survey of physicians on the subject of adoption, by *Patterns of Disease*, a monthly Parke, Davis & Company publication for the medical profession, 49% of the more than 5,000 who responded said children should be told they were adopted before they reach the age of six. Children should be informed between the ages of six and twelve according to 28%, and after thirteen according to 15%. Some 6% believe children should not be told at all.

The Month in Washington

Supporters of the King-Anderson bill stepped up their campaign as the House Ways and Means Committee neared a showdown vote on the legislation which would provide limited health care for the aged under Social Security.

The Kennedy Administration took over the leadership in the drive, with the President accepting an invitation to address a rally in Madison Square Garden, New York City, on May 20, sponsored by the National Council of Senior Citizens for Health Care Through Social Security.

The Administration also was organizing citizens' committees in individual states to whip up grass roots pressure for the bill. The President was asking prominent persons to head such committees.

After personally pledging their support to the legislation in a White House call on the President, 27 physicians formed the Physicians Committee for Health Care for the Aged Through Social Security headed by Dr. Caldwell B. Esselstyn of New York City, president of the Group Health Association of America. Most of the 27 are educators, hospital administrators, or in other administrative posts. A majority are members of the A.M.A.

Pointing out that the White House was able to muster only an insignificant number of doctors for the King-Anderson bill, an A.M.A. spokesman said at least 90 per cent of the nation's 261,000 physicians are opposed to the legislation.

The intensified Administration drive made it imperative that physicians and other opponents of the Social Security approach go all-out at this time in their efforts against the King-Anderson bill.

A vote was expected in the Ways and Means Committee in May or June at the latest.

Sen. Robert S. Kerr (D., Okla.), reaffirmed his opposition to the King-Anderson bill but said he expected it would come up on the Senate floor for a vote. He said he and

From the Washington Office of the American Medical Association.

Rep. Wilbur D. Mills (D., Ark.), chairman of the Ways and Means Committee, were conferring on legislation that would expand the Kerr-Mills program—which has the wholehearted support of the A.M.A.—to cover more aged persons.

Under the leadership of Rep. William E. Miller (R., N. Y.), who is also chairman of the Republican National Committee, some Republican Congressmen got behind the so-called Bow bill which would permit aged persons to reduce their federal income taxes by up to \$125 a year to cover health insurance premiums. The government also would issue to persons 65 years and older who pay no income taxes, or less than \$125, a certificate with which to purchase health insurance.

The Public Health Service has licensed Type III oral poliomyelitis vaccine, but left the decision to local health officials and physicians as to whether the oral or the Salk killed vaccine, or both, would be used this year.

Types I and II oral polio vaccine had been licensed last year, and Type III was the last of the series needed for protection against all three types of polio.

Production and availability of the oral vaccine will be a major factor in the extent of its use this year.

The PHS conclusion on local immunization programs was recommended by a special advisory committee to the Surgeon General and was in line with a policy adopted by the A.M.A. House of Delegates at Denver, Colorado, last November.

The PHS gave five guidelines for the local programs:—

1. Organizers of community drives must be assured that adequate supplies are available before such programs are undertaken.

2. All persons in those groups selected by the community should receive vaccine regardless of past polio immunization history.

3. In general, vaccination programs using either vaccine must have careful planning and achieve a maximum of support from officials and voluntary health and medical groups.

4. The plans should assure the ready

availability of the vaccine in all areas of the community and for all persons within the selected target groups. Special emphasis must be directed to those areas and population groups having the lowest levels of immunization. Community-wide programs should achieve the immunization of the maximum number of persons, but no less than 80 per cent of the pre-school children in all socioeconomic groups.

5. A continuing program of immunization of infants should be incorporated as an essential feature of all organized community-wide programs.

The PHS also recommended that the three types of oral vaccines be administered sequentially, each in monovalent form at intervals of about six weeks.

Dr. Luther L. Terry, Surgeon General of the PHS, termed the licensing of the Type III oral vaccine as “another major step toward the final conquest of paralytic poliomyelitis.”

“Now, two effective weapons, the formaldehyde-inactivated vaccine and the oral vaccine, are available for general use,” Dr. Terry said. “Their proper application should accelerate the decline in poliomyelitis and could lead to the early elimination of the disease.”

The PHS called for emphasis this year on vaccination of the unimmunized and inadequately protected with one or the other of “these effective vaccines (or a combination so long as there is at least a complete series of either) and also to the initiation of as many well-organized community-wide programs as the supply of vaccines will permit.”

The PHS set four priorities in use of the polio vaccines:

1. Vaccination programs in areas threatened with epidemics. The PHS Communicable Disease Center at Atlanta, Georgia, will keep on hand supplies of oral vaccine to meet this need.

2. Routine immunization of infants, starting when six weeks old and completed in 12 months.

3. Immunization of pre-school children.

4. Immunization of young adults and parents of young children.

NORTH CAROLINA

Medical Journal



June, 1962
Vol. 23 No. 6

IN THIS ISSUE:

President Kernodle's Inaugural Address



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Dosage: Gastric hyperacidity—from 2 to 4 tablets as needed. Peptic ulcer or gastritis—from 2 to 4 tablets every two to four hours. **How Supplied:** Bottles of 50, 100, 200 and 1000.

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President Kernodle's Inaugural Address

JOHN ROBERT KERNODLE, M.D.
BURLINGTON

Members of the Medical Society of the State of North Carolina, guests, and friends all:

Again, I sincerely thank you for the opportunity to serve as your president during the next 12 months. Many problems confront us, but I hope that with the coordinated effort and support of us all, the Society will have a most successful year. Of utmost importance is the task of stimulating a better atmosphere and a better image of the physician at the grass-root level. Better liaison must be developed between the doctor, the local society, the State Society, and the American Medical Association.

During these 12 months there will be a stimulus and a need for our efforts to be coordinated. Some of you will feel that I am being rude and stepping on your toes too hard and too frequently. In the turbulent year ahead, many decisions and plans will be made which will affect everyone. With over 3,300 members in our Society, there are certain to be differences of opinion as to course and action. With each of us realizing our individual desires and ideas we must be obedient to that which is best for us all. Always our efforts and actions will be directed toward the goal that will prove to be most beneficial from the standpoint of health and administration for the majority of the people of our great state.

Participation in Public Affairs

During the 14 years of my practice of medicine, it has been my desire to participate in all the community projects that were brought to my attention. Whenever a re-

quest has been made, it has been my will to help the various clubs, groups, and organizations in any manner that would be beneficial to them and enhance the status of the physician and the health of the community.

This kind of cooperation is a very important part of our life. It is entirely possible that we would not have some of the misunderstandings that are now present if the membership of our Society had taken a more active part in local activities; not only in civic clubs, church work and community projects, but also in legislative programs on the local, state, and national level. With this in mind, I urge all of you to consider the ultimate goal for 1962 to be "the improvement of the physician's image," by carrying out and performing in a creditable manner your responsibility to your community and to your patients.

At times it will be necessary for you to make sacrifices in order to honor these multiple requests and aid in services on the local level. Please accept all invitations to meet with groups and participate in their activities. Much good may be accomplished by this mode of public relations and education. Organizations have been told to call on local physicians for help in their programs; so be alert to accept their challenge.

I urge each of the county societies, through its individual members, to take a more active part in the administration of the medical responsibilities of the communities, and create a better liaison between the hospital, the patient, and third parties, including all agencies and insurance programs, both nonprofit and commercial. I urge you to do likewise in your serious efforts to act

on a more regional basis through your district medical societies.

This will be a year of much activity on both the local and national legislative scene. As you are well aware, the Kerr-Mills legislation was not fully implemented during the last General Assembly. As a matter of fact, it was a paltry effort due to high political disdain.

The Council of the Medical Society has gone on record as recommending that the General Assembly of our state pass a bill providing medical assistance for the aged which will include both institutional and noninstitutional care. Again, it is the desire of the Medical Society to take care of those in need, but to oppose vehemently the desire of many to give the right to all, regardless of need, to demand a full health care program.

As most of you are well aware, during the last year there has been a forthright drive to intensify our relationships with the congressmen and senators of our state, to give them the figures and facts, as we see them, regarding health care for the aged. This committee has met with each of the representatives and discussed all the medical problems, including health care for the aged. This effort has been very beneficial to our established rapport, and the Executive Council of the Medical Society has endorsed it again for the coming year.

In addition, the local medical society has enhanced and strengthened its position in the community through the activities of the various committees and individuals who are closely allied with volunteer health programs, government agencies, and third party programs. It is also desirable that medical districts, with their councilors and officers, aid in disseminating and interpreting information among individual members in their districts. This will strengthen their programs and stimulate more activity on the regional level.

The Public Relations Committee has suggested that an increased interest be created for Society officers at the indoctrination course in the early part of 1963. Suggestions have been made that programs on the coun-

ty and district levels be directed toward public areas in administration of medicine. Perhaps more open forums with discussions on this aspect, including third parties, local service programs, and volunteer and government agencies would enhance our knowledge of paramedical problems. There is a program under way to bring into our state audio-visual techniques for continuing educational programs in the doctor's waiting room. It is the desire of the president that each of you develop an interest in this program and establish a visual aid project in your office.

Areas of Emphasis

Several areas will be stressed during this coming year, all leading to a better understanding of the physician's role and his responsibility to the community and to the patient.

I. Medical education

Programs are under way in the American Medical Association, through AMEF and research, to give scholarships and loans to needy medical students, and stimulate more individuals to spend time and study in areas of research. This program is outstanding and needs your continued support, both moral and financial.

As outlined, the program for construction of medical schools should be thoroughly considered in every aspect before the Association rushes into this vital area. This is true also of the recommended bill for government aid in the form of scholarships to medical students. The policy of giving aid, thus forcing students into certain specialties or professions, has proved to be erroneous in its concept and reality. It does not increase the number of quality students, and the results are readily notable in the federal scholarship program for engineers.

There appears to be a great need to motivate qualified students to choose medical and health careers. This emphasis should be made to the high school student. Several health career programs have been promoted in our state, most recently in High Point, Greenville, and Winston-Salem. Your responsibility lies in supporting and partici-



JOHN ROBERT KERNODLE, M.D.

pating in recruitment. I urge all of you to take an active part in this area.

The postgraduate courses throughout the state are readily recognized as emanating from the medical schools and other county societies through their service, seminars and symposiums. These are endorsed in their entirety, for only through continuing education in a postgraduate setting will the medical care program continue to improve.

II. Blue Shield insurance

The doctors' program for the population as a whole with incomes beneath \$4200, and the new Senior Citizen Certificate for the single income limit of \$2500 and married of \$4000, have been endorsed unanimously by the Council and the House of Delegates. The Blue Shield Committee has developed a new Senior Citizens' Certificate Service program. The fee schedule will be based on the North Carolina Doctors Service program, with local underwriting and sales. This plan joins with all of the 76 Blue Shield Plans to make available national coverage. The Council and House of Delegates adopted this program during our meeting this week.

Also adopted was a resolution for continual endorsement of efforts by the commercial companies in their sale of voluntary health insurance for all ages and especially for plans being designed for senior citizens.

Since these developments represent important programs to further our opposition to socialized medicine, your complete cooperation and participation will be most appreciated. Certainly these programs are a beneficial method to prohibit compulsory health insurance on a fragmentary or complete basis, as is being prescribed in Washington today.

A year ago the House of Delegates recommended that the Blue Shield Program be given to Hospital Care. After a diligent effort on the part of the *Ad Hoc* Committee, appointed for this task on March 31, 1962, Hospital Care Association of Durham received the Blue Shield emblem and permission to use it constructively. Your House of Delegates has endorsed a survey to be made of both Hospital Saving and Hos-

pital Care Association with the possibility of merging the two companies into one large nonprofit insurance company. This recommendation has also been proposed by the North Carolina Hospital Association and by the boards of trustees of the two organizations, which have passed resolutions that such a survey be performed. The Medical Society should continue to cooperate in this program throughout the year in a manner to assure strength and soundness in the structure of our voluntary prepayment system and services.

III. Utilization committees

In the fall of 1961 the Council recommended that a utilization committee be organized in all hospitals to investigate and evaluate prolonged and unnecessary bed utilization as well as excessive and unnecessary use of medicines in the treatment of patients. The Accreditation Board of the American Hospital Association has recommended the formation of such committees, and there is a possibility that before another year has passed, this committee will be a requirement for renewal of accreditation. The North Carolina Hospital Association has given full endorsement to this program, and I hope that our members will participate in the formation of such committees in all the hospitals and clinics throughout our state.

IV. Auxiliary

During the year, the Auxiliary to the Medical Society has cooperated in a gratifying and beneficial manner. Through their WHAM program, many hundreds of letters have been mailed to our congressmen. Their cooperation and great interest in programs to stimulate interest among our high school students in health and medical careers is well known. The previously mentioned community programs were made possible through their cooperation. They are willing and ready at all times to help us with our many problems.

In instances when the physicians cannot take a more active part in the community, we must feel free to utilize our counterparts—the Auxiliary—in this vital area. They

will do an excellent job for us, whether they work alone or with the physician-husband. Please use their talents at all times in these most valuable areas.

V. Legislation

The national legislative scene finds President Kennedy using every means to have passed a social security mechanism for the financing of health care for the aged. With our continued opposition to this method of taxation and purveying of health care, it is hoped that you and your spouse will be very active in legislative matters, and especially in both primary and general elections in the months ahead.

The American Medical Association has participated in and endorsed a new organization known as the American Medical Political Action Committee (AMPAC). The directors of this organization are all past officers of the A.M.A. The administration of this program is entirely separate from A.M.A., and its office is outside the A.M.A. building. The objectives are educational and informational, with financial assistance to those in need during an actual campaign.

The Council of the Medical Society of the State of North Carolina also endorsed AMPAC, and recommended a complete duplicate state organization. MED PAC of North Carolina has been formed by individual doctors with objectives similar to those of AMPAC. In the near future you will be called on to contribute to and participate in this

program. Please consider it as one of the most vital methods and individual means of combatting the socialization of medicine—a method of aiding friends of medicine to obtain victories in the elections for various positions in Congress or the General Assembly.

VI. Association of professions

In the state of Michigan six professional societies have joined together to form the Michigan Association of Professions (MAP). This organization has four key committees: public relations, education, economics and legislation. Already in North Carolina exploration has been started through correspondence and meetings with members of the Architects', Dentists', Pharmacists' and Engineers' Associations. During the coming months further information will be given you in regard to the formation of such an organization in our state. There are great potentials in such a structure, and you will be kept informed as to the progress in this field.

Summary

The program for 1962-1963 is based on a sound philosophy which was established years ago in our Medical Society. Will each of you take an active part in improving the physician's image at the local level, and participate in community programs to enable us to establish better rapport with our patients and the community, thus accepting the responsibilities that are so greatly ours?

The time is long since past when we as a society can solve the problems of our aging persons by retiring them from work, pensioning them off, segregating them as unproductive and privileged or abandoned segment of our population. They collectively represent a repository of the experience, the patience, the knowledge and productiveness of our country, and they now represent 20 per cent of our voting population. At any one time only about 5 per cent of the group is found to be totally disabled by disease or infirmity.—Editorial: Let Us Not Bear Those Ills We Have." Medical Annals of the District of Columbia 30: 487 (Aug.) 1961.

The Civil Defense Program

THE HONORABLE CHET HOLIFIELD*
WASHINGTON, D. C.

North Carolina's senators and congressmen have always served with great distinction in the federal legislature, and I am honored to be invited to speak in your great state. I am particularly glad to be a guest in the state of my esteemed former colleague and chairman of the Joint Committee on Atomic Energy, my very dear friend, Carl Durham.

I was invited to talk to you about civil defense. That is a broad subject, but within the brief time available, let me talk about several items that may be of special interest to you. First, I will try to give a brief outline of the civil defense program, then cite some medical aspects of the program, and finally, try to cover some points about public information and attitudes with regard to nuclear tests and fallout.

I should begin by telling you that I serve in Congress on two committees concerned with civil defense. I am presently chairman of the Joint Committee on Atomic Energy, which has held hearings on the effects of radioactive fallout, nuclear weapons tests and nuclear war, and on radiation standards. I am also chairman of the Military Operations Subcommittee of the House Committee on Government Operations. That committee has been reviewing and reporting on civil defense programs since 1955. I will have to refer to the work of both committees in order to make clear my views on these matters.

As doctors, you gentlemen already know more about the possible consequences of disaster, pain, suffering, and the chances of recovery than do the rest of us. You also know the value of a high degree of training, organization, and preparation when a disaster occurs.

In your societies and educational institutions, you are already participating heavily

in civil defense. Dr. Paschal's committee is evidence of that. Other medical activities which have been brought to the attention of the Military Operations Subcommittee are the American Medical Association's annual conferences on disaster medical care and the space devoted to the subject in your state medical journals.

Present Status of the Civil Defense Program

In the past, civil defense has been an orphan in the family of government agencies. It has been starved at the appropriations table, its schooling has been deficient, its textbooks out of date, and its equipment leftovers or castoffs. In 1961, however, President Kennedy, by executive order, transferred major civil defense responsibilities to the Secretary of Defense. This was an important acknowledgment of civil defense as an essential component of the national defense.

Civil defense touches on the lives and hopes and fears of every individual and his family. Voluntary associations of every kind, business and labor organizations, public service agencies, and governmental bodies at all levels are all involved in it. The federal government is only a part.

My position, however, is that the federal role is the primary one. I start with the simple postulate that the federal government is responsible, under the Constitution and laws of the United States, for defending the American people against enemy attack. The fact that modern warfare, with its potential for lightning assault and massive destruction by weapons undreamed of by our forefathers, does not lessen this responsibility. Rather, it underscores and infinitely complicates it.

In earlier years the Congressional Declaration of Intent in the Federal Civil Defense Act reversed the order of emphasis, leaving the primary responsibility for civil defense to the states.

Read before the Third General Session, Medical Society of the State of North Carolina, Raleigh, May 9, 1962.

*Representative from the State of Kentucky, the Congress of the United States, Washington, D. C.

Presently, the responsibility is deemed to be *joint*; but the shape, direction, scope, and specifications of civil defense in the United States must be defined by the federal government.

The core of the new program is this: In accordance with the general plan presented to the nation by President Kennedy, the Office of Civil Defense, in the Department of Defense, will try to provide, over a five-year period, fallout shelters for the entire population of the United States.

Shelter Survey Program

The first step is the National Shelter Survey, Marking and Stocking Program. With the help of some 600 architect-engineer firms on contract, a search has been made for suitable shelter space in blocks of 50 or more, in existing buildings throughout the country. These will be stocked with water and food rations, medical supplies, and other equipment. The supplies will be purchased by the federal government, but installed, maintained, and replenished by local civil defense organizations.

By this survey, the federal government hopes to find 50 million shelter spaces. The survey and marking costs are now estimated at \$68 million. Supplies and equipment, at about \$2.00 per head, will cost \$100 million.

These 50 million spaces will be concentrated largely in cities, because these areas have most of the structures meeting the government criteria for fallout protection. The criteria, among others, include a radiation protection factor of 100.

Critics point out that the cities are the most likely targets, and that the bulk of the spaces identified will be of little or no use where blast and fire will take such a fearful toll. The government's rejoinder is that the many uncertainties in an attack situation make it worth-while to provide fallout protection in cities as well as in less populated areas.

There is another answer, too: In this missile age there would be little warning and time for action if this nation were attacked. For that reason, shelters must be where the people are. They won't have time to get to shelters outside the target areas.

That answer points up another very important feature of the new civil defense program: It is shelter-oriented with regard to planning, managing, training, warning, communications, radiological monitoring, and other vital functions. This type of program rests on the political, social, and technical organization that we have in the cities.

The rural sections, which have relatively few buildings suitable for these shelters, will, in the government's view, have to depend more heavily on the individual and family approach—which otherwise has been relegated to the background.

Shelter Incentive Program

The Shelter Incentive Program is the second installment of the national fallout shelter plan. I am not sure that when the administration first committed itself to fallout shelters it contemplated doing anything beyond the first step. Perhaps the rather critical report which the Committee on Government Operations presented to the Congress last September had some stimulating effect. At any rate, it is proposed to gain 20 million fallout shelter spaces a year for the next five years by federal incentive payments to local institutions.

The estimated federal cost of the incentive program is \$450 million a year. Non-profit health, educational, and welfare institutions, including schools and hospitals, would be eligible for federal payment of the additional costs of shelter construction up to a ceiling of \$25 per shelter occupant.

Before the federal incentive program can take effect, there must be authorizing legislation reported by the Armed Services committees and passed by both Houses of Congress; and of course there must be appropriations. The Office of Civil Defense is asking for \$690 million for the fiscal year 1963, of which \$450 million is for the first year of the Federal Shelter Incentive Program.

Let me explain this somewhat confusing legislative situation.

Last year, in the first year under the new Civil Defense organization, \$207 million in Civil Defense funds were handled as part of the supplemental defense budget requests of President Kennedy. This year, although

Civil Defense funds were requested as part of the defense package, they are being handled in the appropriations committees as part of the independent offices appropriations, in the way the old OCDM requests were handled.

Since the funds requested include those required for the incentive program, they will have to be held up until the authorizing legislation is reported by the Armed Services committees and passed by both houses. The House Armed Services Committee is expected to hold hearings on the authorization bill soon, and perhaps shortly we will have the answers as to whether this program will be allowed to get off the ground.

The five-year program would find or assist in the construction of 233 million shelter spaces for the 1967 population of 200 million people. The extra 30 million spaces would provide for daily shifts in population: from home to work or school, to vacation, or even to convention locations.

Sources of shelter spaces

Four sources of fallout shelter spaces are projected. They are:

1. Seventy million spaces from the fallout shelter survey: 50 million now, and 4 million a year for 5 years, to be identified in new construction.
2. One hundred million spaces from the Federal Shelter Incentive Program, at the rate of 20 million spaces a year.
3. Three and a half million spaces provided in federal civilian and military buildings.
4. Sixty million spaces through the initiative of individual business firms and other unsubsidized sources.

The total cost of this five-year program is estimated at \$5 to \$6 billion, of which the federal share is put at \$3 billion.

This is in fact a cheap and minimal shelter program, considering effects of nuclear weapons. Although the Office of Civil Defense is conducting research in blast and thermal effects, at the policy and budget level *it draws the line at fallout shelters.*

Projected program

Let me make it clear that I support the Administration's civil defense program. I

believe it is a partial program, a too-slow program, but at least it is a program, and that is more than can be said about what went before.

But our Military Operations Subcommittee report last fall called for an *optimum* program rather than a minimum program. In our view an optimum program would not necessarily be limited to fallout shelter protection, nor to a low degree of fallout protection, but would encompass significant blast and fire protection, where feasible. In this connection we pointed out that not only are group shelters far more advantageous than family shelters, but that underground shelters are much more effective than above ground shelters.

An adequate civil defense program, in my view, might cost \$20 rather than \$3 billion—\$4 billion a year for five years. If this seems like a monumental increase, particularly by comparison with the meager federal outlays for civil defense in the past, I say we need perspective. We are talking about a program for survival, and it is not easy to assign a dollar value to human lives and national existence. Spending \$50 billion a year for national defense is an accepted fact of contemporary life.

Military budgets moved into the \$50 billion range after the onset of the Korean War, which generated fears of global nuclear conflict. But while we will have spent, in the fiscal years 1951 through 1962, nearly \$600 billion for major defense programs, we've put hardly one-thousandth of that amount in civil defense.

These vast outlays for national defense are essential. They buy the retaliatory weapons and other armaments which we must have to deter war and resist aggression. Our deterrent strength is our first and best guarantee of peace, but it cannot save our people if the guarantee does not hold up. Our \$600 billions have not bought us any weapons, as yet, to shoot down incoming missiles. In the final resort, civil defense is the barrier against obliteration.

Medical Aspects of Civilian Defense

Let me now take up a related program that you are probably keenly aware of and

perhaps already involved in. This is the Medical Self-Help Training Program. The Department of Health, Education and Welfare wants to extend such training to one adult in every family in the nation, perhaps to 50 million persons. The program has been held up by the Office of Civil Defense for an evaluation of a larger scale test.

Logical differences in approach and objectives can arise in the development of such a program. It can be justified and carried through, for instance, on the basis of the public health benefits that can be obtained from training on this scale. On the other hand, it can be oriented and tied in completely to the fallout shelter program.

I hope that administrative tangles will be quickly unraveled in Washington, but in any case I hope that you will participate in this program. As you may know, the Medical Self-Help Training Program is based on a kit of instructional materials which can be presented to small groups by doctors and paramedical personnel, or by laymen. It seems to me that you medical men will be required to maintain a high degree of accuracy and confidence in bringing the information to the public.

Emergency Hospital Program

Another program that you are undoubtedly interested in is the Civil Defense Emergency Hospital Program. Here are some data presented to the Military Operations Subcommittee in February of this year.

The current federal medical supply stockpile consisted of about \$128 million in bulk stocks at 29 government warehouses, \$5½ million in bulk stocks at manufacturer locations, and \$38 million in stocks packaged into 1,930 Civil Defense emergency hospital units. Current procurement of \$31 million is being devoted to adding 750 emergency hospitals, to bring the total up to 2,680. It is also aimed at raising all these hospitals from three- or four-day medical supply to a 30-day supply.

The projected total of 2,680 hospitals may be balanced against a need calculated at 9,500 hospitals. The need is based on an assumed 33⅓% incidence of casualties during a possible nuclear attack. It is further

assumed that only 400,000 of the 1.6 million existing hospital beds would be available for a possible 60 million casualties. About 600,000 beds would be destroyed and 600,000 rendered unusable by radioactive fallout.

The Department of Health, Education and Welfare reported to the subcommittee a very serious problem in handling deteriorated items in the stocks of the emergency hospitals, some of which were bought in 1952. Until this year no new complete units had been purchased since 1957.

Fallout from Nuclear Tests

Let us turn to the subject of fallout from nuclear weapons tests. This subject should not be confused with the civil defense debate, but in the press and in the public mind it often is.

It is of course clear enough to doctors that the threat to man from the radiation effects of nuclear weapons that could be used in a war is of a much higher order than the threat from the fallout of nuclear weapons tests. We must make that distinction clear to the people. Some protective efforts may eventually have to be made against fallout from tests, but such measures would not be the kind we are talking about when we discuss civil defense.

It is my intention to have the Joint Committee on Atomic Energy conduct public hearings next month to review radiation standards and fallout effects. We would call as witnesses technical and scientific experts to present any information or knowledge developed since our hearings of 1959.

One of the biggest problems we face—and I know that you doctors face the same problem daily—is how to put technical data into layman's language so that the public can readily understand complex scientific judgments and determinations based on experimental data. We will try to present the facts as accurately as possible in the layman's language.

Public interest in the possible dangers of fallout from weapons tests has waxed and waned, depending on whether or not a test series was under way. During the 1958-1961 moratorium interest continued, but concern

was mainly concentrated on the dangers of nuclear war. The Soviet test series in September and the resumption of U. S. tests raises the issue again.

In the 1957 hearings of the Joint Committee on Atomic Energy, we tried to make public as much information as possible, and to distinguish between known facts and matters of uncertainty. For example, there was substantial but far from full agreement on what happens to radioactive debris: how much had been produced to date, and how and where it was distributed. There was general agreement that any amount of radiation, no matter how small the dose, increases the rate of genetic mutation in a population. There was a split on the question of the possible somatic effects of small doses. Of particular uncertainty was the question of whether or not there is a safe minimum or threshold level of radiation below which there is no increase in the incidence of somatic conditions such as leukemia or bone cancer, and no decrease in life expectancy. It was obvious that much research remained to be done to throw light on these areas of uncertainty.

In our 1959 Joint Committee hearings, two years later, there were new data and conclusions.

Technical experts had verified what had previously been suspected about fallout material in the stratosphere. It was not being distributed uniformly. About two-thirds was coming down in the Northern Hemisphere, and the rest in the Southern Hemisphere. The estimate of the average time that this material remained in the atmosphere was reduced from the 1957 estimate of five to ten years to an estimated one to five years.

With regard to the threshold level of radiation for somatic effects, no resolution had been reached. Evidence was received, however, that the magnitude of genetic effects from a given dose—contrary to the earlier belief—is related to the rate at which the dose is delivered—that is, the results of a given radiation dose are less when delivered at low rates than at high rates, even for genetic effects.

These are important differences in opinion on the effects of fallout. I hope we will

have more and better data to report to the public later this year.

Present fallout hazards

Let's turn now to the tests that have produced the fallout, and look at the total megatonnage used in these tests.

Prior to the Soviet test series in September, the United States, the United Kingdom, and the U.S.S.R. had detonated nuclear devices in the atmosphere with a total yield of about 170 megatons. The United States and the United Kingdom contributed about 120 megatons of the total energy yield, and the Soviets about 50 megatons.

The 1961 Soviet test series consisted of about 50 shots, with a total energy yield of about 120 megatons. The Soviet total was then 170 megatons, as compared with 120 megatons for the United States and the United Kingdom.

With regard to fission yield, which is that part of the total energy yield that produces fallout, the pre-1961 figures were 35 megatons produced by U. S.-U. K. tests, and 25 megatons produced by Soviet tests. After the 1961 Soviet test series, the figures were 50 megatons of fission yield for the U.S.S.R. and 35 megatons of fission yield for the U.S.-U.K. (French-produced fallout is negligible so far.)

(The figures I have cited come from a January, 1962, report by the Atomic Energy Commission. I ask you to remember them if you hear it argued that the Soviets are only trying to achieve parity with the United States in their pursuit of weapons testing.)

What have these large megatonnages meant to us in terms of fallout and radiation hazard? The AEC gives us some rather technical measuring rods. I'll try to summarize them.

First, the lifetime radiation dose to the bones of children born this year from all tests conducted thus far would be about one-fiftieth the federal radiation council's guide for normal peacetime operations.

Second, the estimated one-year dose to the thyroids of children resulting from the Soviet 1961 series, based on the highest rates observed in the United States, is less

than the federal radiation council's guide for normal peacetime operations. That dose comes from radioactive iodine-131, which has a half-life of eight days.

Another measuring rod was given by Dr. Edward Teller in an article published in the *Saturday Evening Post* and condensed in the May issue of the *Reader's Digest*. He points out that we in the United States get from cosmic rays alone an average dose amounting to 0.034 roentgens per year at sea level, and 0.05 roentgens per year at Denver, Colorado's altitude. The world has been living with that radiation for a long-time.

Dr. Teller then estimates that the bones of humans throughout the world today are receiving an average of about 0.003 roentgens per year in fallout from strontium-90, and that the rest of the body gets about the same dose from cesium-137. Thus, according to Dr. Teller's figures, the radiation from weapons test fallout is only about one-tenth natural background radiation, and moving to Denver is a more serious matter, with regard to radiation effects, than all the weapons tests held to date.

However, there are some qualifications to be made.

Fallout is not uniform throughout the world. For many reasons, "Hot Spots" of higher levels of fallout radiation do occur. So far, we are told that none of these "Hot Spots" have continued long enough or deviated enough from the pattern to be a serious problem.

Another question is how long the nuclear powers can continue testing in the atmosphere without causing accumulative radiation problem. In our 1959 report, the Joint Committee indicated that if testing continued at the pre-1959 rates for two generations, or about 40 years, some serious hazards might arise. If the rate of testing increases, or if more countries begin testing, that time might come sooner.

The Case for Resumption of U. S. Tests

Nevertheless, I want to make it clear that I firmly support the President's decision to resume tests in the atmosphere.

First things first, and our first problem is

our security. I spoke on the floor of the House on June 14, 1961, just 10 days after I returned from sitting in on test ban negotiations at the Geneva Conference. In that speech I referred to the unyielding position of the Soviet negotiators, and urged that the immediate need for weapons tests, and indeed the general weapons technology, required a careful consideration of the U. S. position. I said, and I still do, that we must proceed with all possible negotiations, but that we must go ahead and test when we need to. We must assume that the Soviets will break the moratorium on tests secretly if they can, and we must get ready to test and even begin on tests for peaceful uses (plowshare shots). Referring to the President's determination to "go the last mile" to get a test ban treaty, I said I thought we had gone that mile.

I supported the President's decision to resume underground testing, and I firmly support the resumption of tests in the atmosphere this April.

We should continue to negotiate with the Soviets for a test ban as long as they will negotiate, but until we have agreement, and ones that permit on-the-spot inspection, we must test. If we do what needs to be done, our friends in the free world, and even behind the curtain, will eventually support us, regardless of temporary adverse publicity and protests. It is more important to have the respect of our allies and our enemies than the transitory affection of the uncommitted peoples of the world when and if the hour of danger arrives. Strength alone will determine the destiny of the free world in that frightful hour.

You doctors undoubtedly have had cases in which a small risk, (relative to the general risks of trying to live to be threescore years and ten) is blown up out of proportion for reasons of publicity. We need to be careful here to explain the realities of life and death. Statistical formulas show that several generations from now, thousands of human beings could be affected by the genetic effects of fallout radiation; but you know as well as anyone that we have to consider those living now on a daily basis.

The threat of fallout from nuclear tests is unquestionably real, but the risks to the future of the human race implicit in the threat of nuclear war are even more terrible. We can't remove all of the threats to the world, or eradicate many of the heavy risks we run, but we can direct our efforts to our problems in proportion to their seriousness, and in proportion to their susceptibility of cure.

In order to discuss matters like these, we need timely and accurate information. In this regard, I would like to comment on a new book released recently. It is the 1962 edition of *The Effects of Nuclear Weapons*. This book contains the data needed by planners and civil defense workers in all professions and specialties. Without good basic data, no good plans are made.

The present edition has been a long time coming. The 1957 edition, which superseded a 1950 edition, contained outdated material, particularly with regard to fallout; two years after it was published the Atomic Energy Commission promised to do something about it.

This book is a revision and not a new draft. It should not have taken this long to get it out. I believe the Atomic Energy Commission and the Department of Defense agreed on starting the revision in November, 1959. The first draft was largely complete in November, 1960, a final draft was complete in February, 1961, and a fully coordinated draft was sent to the Atomic Energy Commission in June, 1961. Questions on the progress of the revision have been raised both by the Joint Committee and by the Military Operations Subcommittee, but production remained slow.

Let me illustrate the seriousness of such delay. In 1961, the 1957 edition was no longer being printed by the Government Printing Office, in anticipation of the new book. That year when civil defense officials tried to begin the training courses for 2,000 architects and engineers in connection with the fallout shelter program, there was no guide available. The old 1957 edition was therefore re-issued and the trainees got the old text when the new one should have been

available. I think this is dangerous bureaucratic delay.

Peaceful Uses of Atomic Energy

Let me emphasize that the atom indeed has a peaceful aspect that is important to remember. The experimental and industrial uses of radioactive isotopes are expanding rapidly. The AEC sold almost \$3 million worth of isotopes for research and other purposes in 1961—a 50 per cent increase over 1960.

With regard to medicine, the AEC's Division of Biology and Medicine supports research in the life sciences at its national laboratories, and has over 600 research contracts at more than 200 hospitals, universities, and private research centers.

Atomic Energy Commission interests lie in four principal directions:

1. The hazards to health in nuclear developments.
2. The application of radiation in the treatment of disease, crop improvement, and other advances. (In this category, the AEC has reported productive agricultural experiments performed at North Carolina State College.)
3. The role of radiation in basic life processes.
4. The use of radiation as a means of investigating the nature and character of basic life processes.

Iodine-131 has been widely used in the evaluation of the thyroid. More recently, it has been used clinically for blood analysis and liver studies. It is limited in certain respects, however, because of its physical characteristics.

An improvement on these characteristics has been found in iodine-125, a relatively new radioisotope for diagnostic use. Its advantages are a shorter half-life, which greatly reduces the patient's exposure to radiation and at the same time limits the area of exposure because of its lower energy.

Conclusion

These are just a few of the many ways that nuclear energy can help mankind, while posing the vast problems that force

us to undertake an effective civil defense program.

In the meantime, we must continue to develop our military weapons so as to be able to prevent a war, if possible. If by accident or the mad decision of an adversary war

should come, we must be prepared to defend the cause of liberty.

In the last analysis, we will exercise our great strength in such a way that the fires of freedom shall continue to burn and light the path for generations yet unborn.

Renal Arterial Hypertension: Diagnosis and Treatment

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After the initial enthusiasm over lumbo-dorsal sympathectomy for the treatment of systemic hypertension, it is now realized that the role of surgery in the treatment of this disease is rather limited.

Most surgeons confine their operative indications to cases in which the cause of the elevated blood pressure is accessible for surgical therapy; such as coarctation of the aorta and tumors secreting epinephrine-like substances. In the last five years, however—primarily due to the fundamental work done by DeCamp¹ and Poutasse²—a new indication has been added to the previous two: stricture of the renal artery.

Hypertension in laboratory animals caused by renal ischemia was described at the beginning of this century by Carrel³ and Janeway⁴, and later by Goldblatt⁵. It took three decades, however, before the clinical significance of the "Goldblatt phenomenon" became appreciated. The purpose of this paper is to call attention to this condition, which seems to be more common than is generally realized, and to discuss its main clinical features, diagnosis, and treatment.

Etiology

Arteriosclerosis is the commonest cause of narrowing of the renal arteries. Hypertension of renal arterial origin is manifested fairly often in persons with occlusive arterial disease in other parts of the body (lower extremities, heart, brain, and so forth).

This type of hypertension, however, may occur as the first clinical sign of arteriosclerosis obliterans. The atherosclerotic clinical process may lead to impaired renal blood flow in the following ways: (1) as an isolated plaque in the orifice of the *arteria renalis*⁶; (2) as diffuse atheromatous thickening of the renal artery⁷; (3) as an aneurysm of the aorta involving the renal arteries⁸; (4) as an aneurysm of the renal artery itself⁹; (5) as secondary thrombosis of an atherosclerotic vessel^{1, 10}.

The last three types of stricture might be caused by other diseases invading blood vessels, such as *syphilis*, *thromboangiitis*, and *periarteritis*¹¹.

In some cases described in the literature, hypertension was due to *congenital stricture* of the renal artery¹ or coarctation of the abdominal aorta¹².

Thrombosis of the lower abdominal aorta may extend into one or both renal arteries, causing hypertension or eventually death.

Emboli originating from the heart, or plaques loosened from the aortic wall during operation¹, might plug the kidney arteries. Less frequent causes of narrowing are *extrinsic compression by tumors*⁷ or *hematoma*^{9, 13}, and finally, surgical trauma¹⁴.

Diagnosis

The detection of the human "Goldblatt kidney" is not always an easy task, but it is very rewarding. One should think of renal

artery constriction particularly in the presence of the following clinical findings:

1. Disparity in size of the kidneys.
2. Hypertension in a patient under 25 years old or malignant hypertension in a patient more than 50 years old.
3. Nonfamilial hypertension of recent onset, regardless of age, with rapid progression into the malignant phase.
4. Elevated blood pressure that develops after an episode of flank or abdominal pain.
5. Hypertension that develops following trauma, abdominal surgery (especially urologic operations).

Intravenous and in some cases retrograde pyelography is a routine examination for patients suspected of having obstructive renal arterial disease. These tests give valuable information of the anatomic changes, but their value is limited in the discovery of arterial strictures. In some patients the involved kidney appears to be smaller and does not excrete dye as well as its contralateral partner. We have had patients in whom there was severe constriction of the renal artery, but the involved kidney excreted dye as well or seemingly better than the healthy one. The cause of this we cannot explain.

Split-function studies are suggested by some authors^{14, 15a, b} as an aid in diagnosing unilateral renal artery constriction. Catheters are placed in both ureters, and separate samples of urine are taken for determinations of total volume as well as sodium concentration, osmolarity, excretion of inuline or creatinine, and so forth. The combination of diminished urine volume with increased osmolarity, elevated inuline or creatinine concentration is strongly suggestive of arterial stenosis on the side of the ureter through which the sample was taken^{15c, d}. Apparently these tests are too complicated and tiresome for both the doctor and patient, and fail to give absolute proof of the presence or absence of an arterial lesion. If constriction of a renal artery is suspected, then tests such as lumbar aortography, which gives a definite answer, should be taken.

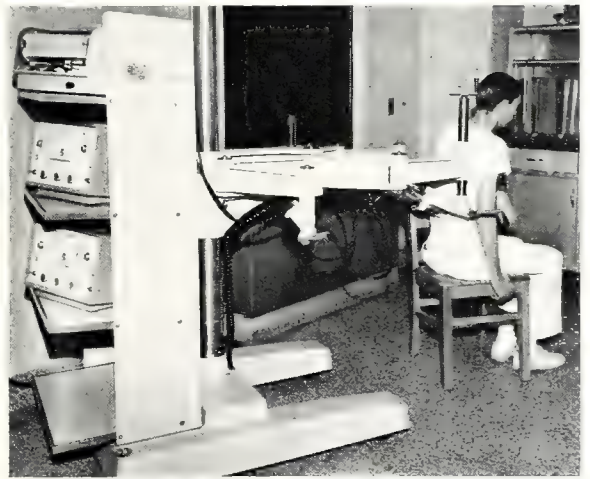


Fig. 1. The comparative measurement of renal blood flow determined by twin Geiger-counters.

The evaluation of renal function by means of *radioactive isotopes* has proved useful since its introduction by *Taplin* and co-workers¹⁶ in 1956. At present sodium o-iodohippurate is the isotope of choice.

The characteristic renographic curve is divided into three components or phases. The initial component is the vascular phase. During the first 15 seconds that radioactivity is being measured in the kidneys, about one-half the radioactivity detected is due to that portion contained in the renal vessels. The secretory phase, the second component of the curve, is due to the secretion of orthoiodohippuric acid by the kidney tubules. The last phase of the renogram is the excretory decrease in the radioactive material as it is removed by the kidneys.

The renogram has proved to be helpful as a screening test in evaluating the differential renal blood flow and function in patients with hypertension. The aortogram is the most definitive diagnostic method which we now have to determine whether an individual's hypertension may be on a renal vascular basis. The renogram makes possible a better selection of patients for whom an aortogram is indicated.

An abnormality in a renal artery producing an ischemic kidney will affect the physiology of the involved kidney in several different ways that can be detected on the renogram. The abnormal kidney may show an increase in the uptake time of the iso-



Fig. 2. Normal percutaneous lumbar aortogram. There is good filling of all branches of the abdominal aorta including both renals, which do not show any pathological change.

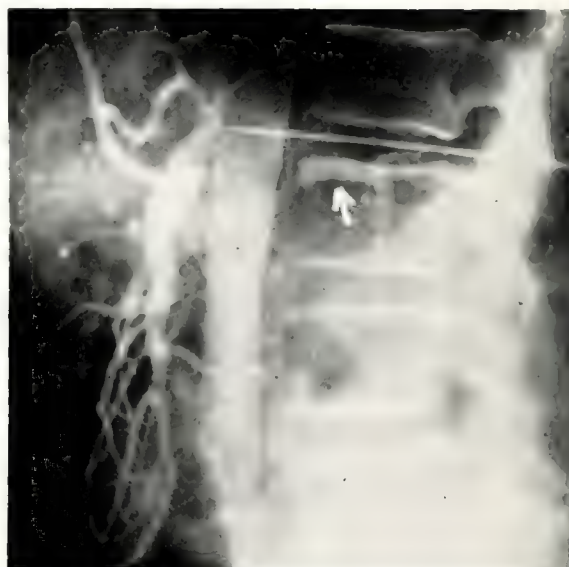


Fig. 3. Normal percutaneous aortogram (lateral plane). The abdominal aorta, mesenteric and (arrow) left renal artery is well visualized.

tope, or a decrease in radioactivity during the vascular phase when this component of the curve is compared with that of the opposite kidney or the vascular phases of the kidney are compared against the aorta¹⁷. The renal function of the ischemic kidney may be diminished. A decrease in the output of urine may be reflected by a decline in the curve during the excretory phase¹⁸.

A normal renographic curve is illustrated in figure 5. An abnormal curve, due to various types of renal pathology, is illustrated in figures 6 and 7.

The determination of renal function by means of radioactive isotopes is not a substitute for the intravenous or retrograde pyelogram. The renogram is an additional aid in surveying patients with hypertension and in evaluating renal physiology.

The only definite diagnostic test for renal artery constriction is *renal arteriography*. The contrast filling of the renal arteries is usually done simultaneously with that of the abdominal aorta, through direct needle puncture or by retrograde aortic catheterization.

Translumbar aortography employing needle puncture is preferably done on a patient who has had premedication and local



Fig. 4. Lumbar aortogram shows severe stricture of the right renal artery (arrow) right at its origin and irregularity of the left renal artery due to arteriosclerosis. There are advanced arteriosclerotic changes also in the lower aorta, left common iliac artery. The right iliac artery is completely obstructed.

anesthesia. In nervous persons, however, general anesthesia might be used. The dye (25 to 30 cc. of a 50 per cent solution of Hypaque) is rapidly injected through a long 17 gauge needle at the level of the twelfth

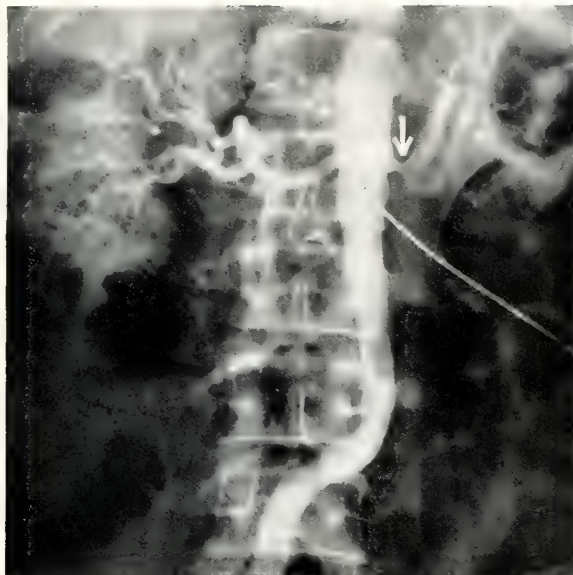


Fig. 5. Lumbar aortogram reveals stenosis of the left kidney artery just distal to its origin of the aorta. There is an accessory renal artery to the lower pole of the left kidney. The left common iliac artery is blocked at its origin.



Fig. 6. Aortogram shows complete obstruction of the right renal artery (arrow) just distal to its origin.

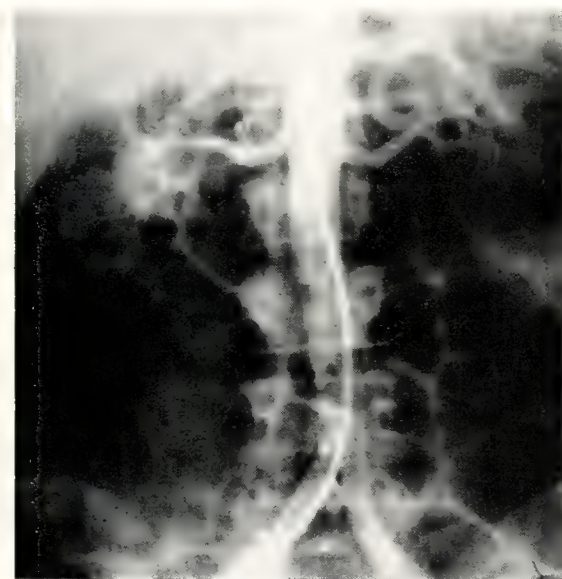


Fig. 7. Normal retrograde (via femoral artery) aortogram.

thoracic vertebra. Usually a single x-ray film is satisfactory for clinical evaluation. Special measures, such as tourniquets applied to both thighs⁷, or hypotensive drugs^{19, 20} are not necessary to increase the quality of these radiograms.

If translumbar aortography fails to furnish the information desired, the contrast-

filling of the renal artery is carried out by a catheter inserted through a branch of the deep femoral artery, or percutaneously. The catheter then is pushed forward into the abdominal aorta to the level of the hila of the kidneys, and the contrast material is injected directly into the renal arteries. The route of the dye is followed by rapid-speed serial angiography.

With careful technique and proper precautions, abdominal aortography does not carry a significant morbidity. With more than 400 translumbar and retrograde aortograms, we did not experience a single serious complication.

Treatment

Surgery is the only effective way to treat this syndrome. The aim of the operation is to restore adequate blood-flow to the ischemic organ rather than to remove the kidney. Ablation of the kidney^{10, 15a, 21} should be performed only if the kidney parenchyma is destroyed or reconstructive vascular surgery is technically impossible.

If the renal blood flow is impeded because of external compression, adequate measures should of course be taken to eliminate the cause, which may be a tumor, a hematoma, or an aneurysm. If the obstacle is located in the renal artery itself, one of

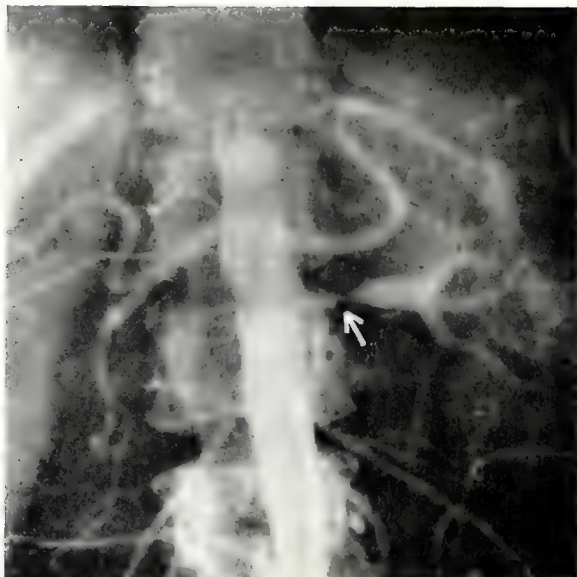


Fig. 8. Retrograde abdominal aortogram through a catheter introduced via the femoral artery. There is no filling of the right renal artery. The left renal artery is severely constricted (arrow). There is a post-stenotic dilatation just distal to the constriction.

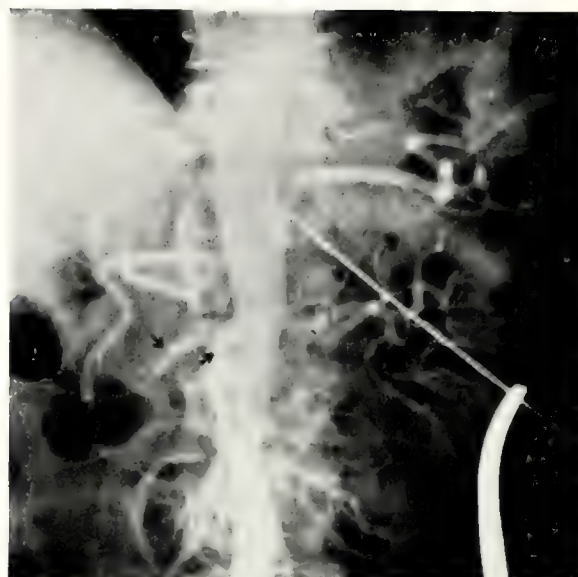


Fig. 9. Lumbar aortogram shows diffuse arteriosclerotic changes in the renal arteries. There are plaques causing stenosis in several of the primary and secondary branches of the renal artery.

the following methods could be used for relief:

1. Endarterectomy
 - a. Through the renal artery²²
 - b. Transaortic²³
2. Resection and end-to-end anastomosis of the renal artery²²
3. Resection and grafting
 - a. Of the constricted segment of the renal artery²⁴
 - b. Of a segment of the aortic wall together with the stenosed renal artery and replacement with a homograft²⁵
 - c. Of an entire circular segment of the aorta and stenosed renal artery(ies) and replacement by a homograft²⁴
4. By-pass
 - a. End-to-side anastomosis between the proximal segment of the splenic artery and the renal artery distal to the stricture.
 - b. End-to-end anastomosis between the splenic artery and the distal end of the divided renal artery
 - c. A vascular graft anastomosed end-to-side to the aorta or end-to-end of the divided renal artery

- d. A vascular graft anastomosed end-to-side to the aorta and in a similar way to the renal artery distal to the stricture.

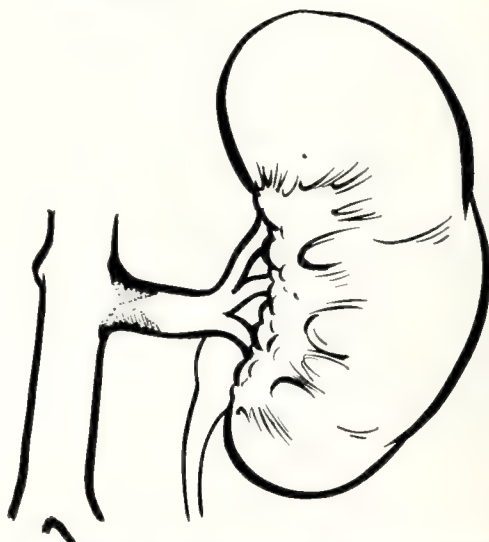


Fig. 10. The most acceptable surgical methods for revascularization of the kidney: By-pass with a synthetic graft anastomosing the end of the renal artery to the side of the aorta (a) a by-pass using the divided splenic artery (b) end-arterectomy (c).

Note: Only the third method (c) is shown in figure 10, a and b having been erroneously omitted in making the plate. The complete drawing will be reproduced in the July issue.—Ed.

In our hands the latest two methods—namely, end-to-side or end-to-end anastomosis with a crimped Teflon arterial graft—proved to be the most satisfactory. By-pass grafting versus direct attack on the stenosed arterial segment has the advantage of requiring less extensive dissection. The aorta is cross-clamped well below the level of the renal arteries; therefore, the time required for the complete interruption of the renal blood flow is much less than with most of the other methods. And last, but not least, if the anastomosis between the graft and the renal artery is done end-to-side, in case of late failure of the graft the situation is no worse than it was before operation. To protect the kidney from anoxia while the anastomosis is performed, the patient's body temperature is lowered to 31-32 C.

Conclusions

Ischemia of the kidney caused by stenosis of the renal artery results in severe arterial hypertension, similar to the "Goldblatt phenomenon" of the experimental animal. Although in the majority of cases this stricture is the result of arteriosclerosis, it may be congenital or due to embolization, thrombosis, or trauma.

Every person with severe hypertension of sudden onset, especially if it develops after an episode of flank pain, operation or trauma, should be suspected of having a stenosed renal artery.

Determinations of radioactive renal flow are useful in screening the hypertensive patients; a definitive diagnosis, however, requires contrast radiography.

The treatment of this condition is surgical. Instead of removing all or part of the kidney, an effort should be made to preserve all functional renal tissue by reconstructive vascular surgery.

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A New Antihypertensive Preparation Combining Rauwolfia, Bendroflumethiazide and Potassium

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During the half century since Ambard and Beaujard¹ first observed "a most constant and notable" relationship between salt retention and hypertension, there has been considerable speculation as well as study regarding the possible link between salt or sodium metabolism and hypertension². Although the role of sodium in the development of hypertension remains to be explained³, it has long been recognized that drastic restriction of dietary sodium or the administration of drugs that will accelerate depletion of body sodium, such as the mercurial diuretic agents, will lower the blood pressure in hypertensive patients^{3,4}. There are obvious difficulties in dietary restriction^{4a}, however, and the necessity for parenteral administration of the mercurial diuretics to obtain the best therapeutic results is a disadvantage in their use⁵.

The advent of the newer nonmercurial diuretic drugs has provided the physician with orally effective, powerful natriuretic agents which are easy to administer and relatively free from disagreeable or toxic side effects^{4a,5,6}. This group of compounds, prominent among which are the benzothiadiazine diuretic compounds, is presently the most widely used of the antihypertensive agents, not only as basic therapy, but espec-

ially in combination with other antihypertensive agents^{4a,7}.

Recently, a new antihypertensive preparation, identified as Rautrax-N*, became available for clinical use. This preparation combines whole root *Rauwolfia serpentina* and bendroflumethiazide with potassium chloride.

Rauwolfia is an old antihypertensive drug with which we were thoroughly familiar, having used it in our practice for a number of years. We had also had an opportunity more recently to use chlorothiazide and hydrochlorothiazide in the treatment of patients with hypertension. The results were generally satisfactory. Bendroflumethiazide is a newer and more potent member of the benzothiadiazine series⁵. Preliminary clinical results have suggested that it may be slightly more effective as a therapeutic agent⁷. The addition of potassium chloride to the formulation of Rautrax-N to offset potassium loss appeared to offer an additional advantage in the use of the preparation.

We have now used Rautrax-N in our private practice for more than two years. Our experience with the drug has been on the whole quite favorable. Not only have

*Supplied by E. R. Squibb & Sons.

Table 1

**Summary of Results with Rautrax-N in 64 Hypertensive Patients
Grouped According to Clinical Response**

Clinical Response*	No. Patients			Average Mean Blood Pressure (mm.Hg)†		
	Male	Female	Both	Pretreatment	Post-Treatment	Difference
Excellent	9	24	33	158	108	50
Good	7	12	19	163	119	44
Fair	4	7	11	156	128	28
Poor	0	1	1	150	135	15
Totals	20	44	64	159‡	115‡	34

*Excellent: Reduction in blood pressure to normal levels accompanied by relief of all "hypertensive" symptoms.

Good: Satisfactory reduction in blood pressure accompanied by less marked symptomatic improvement.

Fair: Intermediate reduction in blood pressure.

Poor: Little reduction in blood pressure.

†Mean blood pressure: (1/2 systolic pressure + diastolic pressure)

‡These average values are calculated for the entire series of 64 patients and do not represent an average of the values shown above for the four clinical groups.

satisfactory therapeutic results been achieved in the majority of patients who were placed on the preparation, but it is easy to take, requires no complicated dosage schedules, and is notably free from undesirable side effects. A brief resume of our experience with Rautrax-N in the treatment of patients with hypertension follows.

Material and methods

Altogether, 64 patients (20 males and 44 females) are included in this report. Their ages varied from 44 to 82 years, 58 of them being at least 50 years old and 43 at least 60 years of age. All had hypertension, the majority for at least four or five years. In a few cases, however, hypertension had been discovered only the year before; in others it was known to have been present for as long as 30 years, while in a number of cases the duration of the illness was unknown.

Control or pre-treatment blood pressure levels varied in the individual patients from 170 to 268 mm. of mercury, systolic, and from 100 to 150 mm. diastolic.

In 16 patients, hypertension was found in association with heart disease, in 14 there was evidence of arteriosclerosis, while 5 other patients presented signs and symptoms of both heart disease and arteriosclerosis in addition to high blood pressure. Other conditions found on examination in-

cluded diabetes mellitus in 4 patients, and epilepsy, gout, obesity, rheumatoid polyarthritis, cirrhosis of the liver, and histamine encephalalgia in one patient each. One patient under study had retinal hemorrhage when first seen; 3 had previously experienced cerebral hemorrhage or thrombosis, and one had a history of coronary thrombosis some six years previously.

Prior to the administration of Rautrax-N, 16 of the patients had been under treatment with whole root *Rauwolfia serpentina*, 3 had been treated concomitantly with rauwolfia and chlorothiazide, and 2 had received reserpine or hydrochlorothiazide therapy.

Before treatment with Rautrax-N was initiated, all antihypertensive medication was withdrawn from these patients and each was reexamined. Determinations of blood pressure, body weight, and pulse rate were recorded in every case. Throughout the period of study each of the patients of the series was examined at regular intervals. At first, these examinations were made every two weeks, but after the blood pressure had become more or less stabilized, the patients were examined less frequently, usually once a month.

Initially, 1 tablet of Rautrax-N two or three times a day, after meals, was prescribed in every case. After treatment had been

Table 2

Results with Rautrax-N in 64 Patients Grouped According to Previous Antihypertensive Therapy

Patient Group*	No. Patients	Pretreatment	Average Mean Blood Pressure (mm.Hg)				Rautrax-N
			Posttreatment				
			Rauwolfia	Reserpine	Hydrochloro-thiazide	Rauwolfia and Chlorothiazide	
A	43	157	—	—	—	—	114
B	16	165	137	—	—	—	119
C	3	160	135	—	—	121	114
D	1	143	—	—	—	—	129
E	1	140	—	—	—	—	103

*Group A: Received no antihypertensive therapy prior to Rautrax-N

Group B-E: Received other antihypertensive drugs prior to Rautrax-N, as follows:

B—Whole root Rauwolfia serpentina

C—Whole root Rauwolfia serpentina

D—Reserpine

E—Hydrochlorothiazide

under way for several weeks, the dose was reduced from 3 to 2 tablets a day for 9 patients, and from 2 tablets to 1 tablet daily for another patient. All other patients of the series were continued throughout the study on the dosage initially prescribed—3 tablets a day for 40 patients, and 2 tablets daily for the remaining 14 patients. During treatment patients with heart disease were given digitalis in the same dosage. Other medications such as warfarin, triamcinolone, and probenecid were given as indicated, but no other antihypertensive agent besides Rautrax-N was administered to any of the patients. At the time of writing, treatment with Rautrax-N had been continued in the individual cases for various periods ranging from 12 days to 27 months.

Results

Results of treatment with Rautrax-N for the entire series are summarized in table 1, the patients being grouped according to the clinical responses observed. Results with patients according to previous antihypertensive therapy are shown in table 2.

It is clear from table 1 that results were satisfactory in a total of 52 of the 64 patients treated with Rautrax-N. Of these, 33 exhibited "excellent" therapeutic responses, manifested by a reduction in the blood pressure to normal levels (150/90 mm. Hg or less) and relief of all "hypertensive" symptoms, such as headache, dizziness, dyspnea,

and tachycardia. Nineteen patients showed "good" clinical results, their improvement being less marked than that experienced by the first group.

The average mean blood pressure* for the 33 patients manifesting "excellent" responses was 108 mm. Hg after treatment with the drug as compared to the control average mean level for the group of 158 mm. Hg. The corresponding values for the 19 patients who manifested "good" responses to treatment were 119 mm. Hg after therapy as compared to 163 mm. Hg before treatment.

There was only a moderate reduction in blood pressure in 11 of the 64 patients, and results were considered to be only "fair" in these cases; while the single remaining patient of the series showed an unsatisfactory reduction in blood pressure, or a "poor" result.

Not shown in the table are the blood pressure readings in individual patients following treatment with Rautrax-N. Altogether, 40 of the 64 patients who received the drug exhibited posttreatment blood pressure readings within normal limits. Posttreatment blood pressure reading for the entire series varied from 120 to 190 mm. Hg, systolic, and from 80 to 100 mm. Hg diastolic.

*Mean blood pressure: $\frac{1}{2}$ (systolic pressure plus diastolic pressure).

Table 2 reveals that after patients of this series were transferred from other antihypertensive therapy to Rautrax-N, not only was the hypotensive effect of the former treatment maintained but there was generally a further, though in some instances slight, reduction in blood pressure; so that the average mean pressure for each group of patients after treatment with Rautrax-N was below that achieved with other drugs. For example, among a series of 16 patients whose "control" average mean blood pressure had been 165 mm. Hg before any antihypertensive medication had been given, the average blood pressure fell to 137 mm. Hg after rauwolfia therapy, and this level was further reduced to 119 mm. Hg. after the patients had been transferred to Rautrax-N. Similarly, 3 patients who were transferred from concomitant therapy with rauwolfia and chlorothiazide showed an average mean pressure of 114 mm. Hg after treatment with Rautrax-N, as compared to 121 mm. Hg after rauwolfia plus chlorothiazide, 135 mm. Hg after rauwolfia, and 160 mm. Hg before antihypertensive treatment.

Table 2 reveals that, whether or not the patients of this series had or had not received antihypertensive medication before they were placed on Rautrax-N, essentially the same degree of stabilization in blood pressure was achieved. For example, the posttreatment average mean pressure was 114 mm. Hg for 43 patients who had received no antihypertensive drugs before Rautrax-N was given. This value may be compared with the values of 119 mm. Hg and 114 mm. Hg which were the respective average mean blood pressure values after treatment with Rautrax-N for the two previously mentioned groups of patients who had received prior antihypertensive medication.

Side Effects

Adverse effects attributable to the administration of Rautrax-N to the patients of this series were notable by their relative absence. Of the 64 patients who were treated with the drug, 58 had no complaints at all. Five patients complained of nasal stuffiness, but although antihistamine medication was required in one case to control this

effect, in no case did it require withdrawal of the drug. Diarrhea developed in 1 patient after three days treatment with Rautrax-N. Since this effect continued to be a problem, after one month of treatment, the drug was withdrawn. Another patient had gout on the eleventh day of treatment, and the drug was discontinued the next day. On the other hand, one of the patients in the series who presented gout as a complicating condition prior to treatment with Rautrax-N, took the drug satisfactorily for 20 months, the gout being well controlled by the administration of probenecid with colchicine (Colbenemid.)

Comment

The findings of this study demonstrate that Rautrax-N is an effective antihypertensive agent. In our use of the drug the results have usually been good. With only rare exceptions, there has been a significant fall in blood pressure soon after the start of Rautrax-N therapy; and as treatment was continued, the blood pressure became stabilized at satisfactory baseline levels generally beyond which no further reduction occurred.

The quick action of the drug, the gradual stabilization of the blood pressure at suitable levels (normal or near in the majority of cases), and the relative absence of adverse effects assure the clinical usefulness of the drug. It is especially useful, we believe, in the treatment of ambulant elderly patients with hypertension, for whom a more conservative therapeutic approach is usually mandatory. On the whole, our experience with Rautrax-N leads us to consider it the drug of choice for the treatment of ambulatory patients with hypertension ordinarily encountered in daily office practice.

Summary

A new antihypertensive preparation known as Rautrax-N, which combines whole root *Rauwolfia serpentina* with bendroflumethiazide and potassium, has been put to trial in the treatment of 64 patients with moderate to severe hypertension. Prescribed doses were 2 or 3 tablets a day, after meals, and treatment was continued for from 12 days to 27 months in the individual

cases. "Good" or "excellent" results manifested by a satisfactory reduction in blood pressure accompanied by relief of "hypertensive" symptoms such as headache, dyspnea, dizziness, and tachycardia were achieved in 52 (80 per cent) of the treated patients. Forty (62 per cent) of the 64 patients exhibited normal blood pressure readings (150/90 mm. Hg or less) following treatment with the drug.

Nasal stuffiness was a complaint in 7 cases, and in 1 instance an antihistamine drug was administered. Gout developed after 11 days in another patient, and treatment was discontinued; diarrhea required withdrawal of therapy with Rautrax-N in another case. No other side effects were encountered. Fifty-eight of the 64 patients experienced no side effects whatsoever.

The prompt hypotensive effect of this preparation, the gradual stabilization of the blood pressure at suitable levels that follows its administration in the majority of cases, and the relative absence of adverse effects associated with its use assure the clinical usefulness of the drug.

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Septum Surgery -- Past and Present

JAMES W. BROWN, JR., M.D.

KANNAPOLIS

This paper is a brief attempt to review the surgery of the nasal septum over the past 80 years, and to spotlight current attempts to break away from a long established tradition in this field—a tradition which in the beginning was a brilliant milestone, but which in being accepted as the ultimate ideal became an obstacle to further progress.

One must feel a sense of humility and gratitude for the contributions of such men as Ingals, Freer, Killian, and Goodale; but as in all fields of knowledge, their advances were built upon the work of earlier generations. This is not to detract from their own enormous achievements, but to emphasize

that these contributions were but giant steps in the right direction, not the end of perfection; nor were the modifications and improvements of such men as Metzbaum and Galloway the final goal.

Early Advances

Ingals' contribution

In 1882 Ingals classified the various septal deformities and described the submucous resection of the septal cartilage. He mentioned the prior contributions of such men as Gross, Adams, and Steel. Some of these early efforts consisted of paring off portions of the bent septum, forcibly replacing the deviated septum, and attempting to improve the airway by deliberately perforating the septum.

Ingals described a procedure whereby the mucous membrane was reflected from the convex surface of the deflected cartilage and

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the latter cut through and wedged sufficiently to permit it to be pushed to the mid-line, with re-approximation of its edges. The mucous membrane was then stitched down and tampons were used to maintain the new position. He also dealt briefly with the twisted end of the septal cartilage and with deflections of the bony septum, even suggesting removal of the cartilage and bone by paring off protrusions with a knife or saw. (In contrast to Gross, he advocated doing this submucosally).

Four years later, Krieg reported a variation of the submucous procedure in which the entire deflected cartilage (not merely an anterior triangle) was removed, and Boenninghaus followed shortly with a description of an extension of the resection into the vomer and perpendicular plate of the ethmoid. However, both these men removed the reflected mucosa from the convex side.

In 1890 Asch presented his method, a triumph of brutality to tissue, in which a special type of scissors was used to make a crucial incision through all layers of the septum in the area of deformity. The fragments thus created were forcibly broken up and pushed to the mid-line. In a popular text published in 1902, the virtues of this and the other destructive procedures previously mentioned were extolled, along with a refinement of the Asch operation in which the septal fragments were pinned in their new alignment. Only a brief sentence suggested the possibility of using the submucous procedure described 20 years before by Ingals.

Freer revives work of Ingals

Freer's monumental works (1902-1903) shows the influence of Ingals. He saw the inadequacies of the methods then in vogue for dealing with the myriad septal deformities, and deplored the current irreverence for the septal tissues. He extended Ingals's procedure to include those of Krieg and Boenninghaus, but was not familiar with their publications, which were in German. In his article, however, he properly credited them with having antedated him, something the two Germans had not done with respect to the American Ingals.

Freer expressed the opinion that the septum was not a supporting wall for the external nose, but a mere division between the nares, and he pointed out that saddling occurred as a result of cicatricial retraction. He emphasized the importance of the mucosa, and urged avoidance of perforation, if possible. His approach was an L shaped incision, with the mucosa reflected forward. On reaching the bony septum, he preferred to fracture the latter rather than resect it.

In 1903 Freer reported an additional 36 operations for a total of 51, which he classified as to type of deflection. He admitted nine perforations in his earlier cases. Though he did not believe that they had caused undue trouble, he was anxious to avoid this complication. He had changed his incision to an inverted T, and suggested removing the cartilage as far forward as necessary, even to the columellar edge, should this be transverse. He had abandoned the fracture displacement of the bony septum and substituted resection, boldly asserting the belief that this procedure was applicable to all cases.

Killian's triumph

With Foster's translation of Killian's brilliant article into English in 1905, the ultimate seemed to have arrived. It is apparent that the simplicity of this work, combined with its brilliance of comprehension, satisfied otorhinolaryngologists in this country for 40 years, and lulled them into a complacency that virtually brought progress in this field to a standstill. The method is still firmly entrenched both in medical circles and insurance fee schedules. It is so widely known that we may omit any detailed description of it here. I want to emphasize, however, that Killian realized the importance of preserving the mucosa.

In the same journal, Ballenger introduced his famous swivel knife, boasting that its use cut his operating time by from five to twenty minutes.

Hurd followed shortly with his description of a procedure that is in essence a consolidation of all the then current ideas on the subject.

Breaking with the Past

Only in recent years have we broken away from the principles thus formulated and firmly rooted in the literature 55 years ago. It was obvious to many during subsequent years that the submucous resection had serious shortcomings. For example, the portions of septum left as support often were a party to the deflection and obstruction. The normally rigid partition was left as a flaccid partition in which a deflected remnant might prevent draping of the soft parts back into the mid-line. Furthermore, this flaccid wall was subject to perforation even years later; and subsequent procedures, if needed, were often prohibited by the loss of substance in the septum. Not the least objection to the Killian method has been its inapplicability in children.

Metzenbaum, recognizing certain of these shortcomings, in 1929 presented his swinging door technique whereby he sought to overcome them. His procedure was a step in the right direction, and was incorporated into more recently developed methods.

The Galloway procedure, a further advance, is still a useful adjunct, but insufficient for extensive deflections.

I would like here to emphasize that septal surgery cannot be considered apart from nasal surgery in general. All too often the nasal pyramid is party to the obstruction, and must be party to the reconstruction.

Fomon's procedure

To Fomon, the otolaryngologists of this country are indebted for returning nasal surgery to us. Perhaps we lost it through our own apathy; but in recent years, Fomon, Cottle, Goldman, Becker, and others have brought about a resurgence of interest in this branch of our work.

The Fomon septal operation (exclusive of consideration of concomitant deformities of the vault) is carried out through a right hemitransfixion incision, a columellar cartilage implant being secured as an initial step. This cartilage is placed not as support, but to prevent retraction in this area. The transfixion is then finished, the mucoperichondrium elevated on each side, and the entire extent of deflected cartilage re-

moved. This cartilage, if suitable, is reinserted after being straightened and anchored with mattress sutures. If necessary, it is replaced in fragments, the packing serving to hold the pieces in place; or, if it is entirely unsuited for reinsertion, isogenous preserved cartilage may be used. For deflections in the deeper portions of the septum, Fomon uses the Killian technique in combination with the above.

Becker properly believes that no single method of correction is applicable in every case of anterior septal deflection. In shifting the developmentally dislocated septum back to the mid-line, he feels that the tendency to recurrence is lessened by fracturing the maxillary spine and crest, as well as the vomer behind, from the floor of the nose and shifting the entire septum as a unit rather than freeing the cartilage from the bone at their junction. To prevent the mucosa on the short side from pulling the septum back, he advocates incising the mucosa along the floor and grafting the gap thus created. He uses multiple vertical cuts through septal cartilage, removing strips at points of angulation to straighten the cartilage further, and removing deflected portions of the posterior septum as necessary. For traumatic deflections, this procedure is modified to suit the needs of the individual case, extensive resection being necessary in depressed deformities.

Converse has expressed the opinion that correction of the septal deformity is of basic importance in straightening the crooked nose, and also that the procedure must vary with the findings in the individual case. In general, he modifies and replaces the septal cartilage rather than resecting it. For pure posterior bony deflections, he suggests bony resection through a posterior incision.

Goldman starts his operation with a low right hemitransfixion incision through which he separates the columellar tissues. He follows with a complete transfixion incision at the edge of the cartilage, elevates the mucoperichondrium on either side, and creates two sections of cartilage at the caudal end of the septum by vertical incisions. Posterior to the second of these sections of cartilage, he moves the septum to the mid-

line by fracturing the bony portions. Limited resection of segments is then carried out as necessary. The nasal spine is removed or moved medially as necessary, and mucosa and vertical strips are sewn together. The transfixion is then closed.

Cottle's maxillary approach

Cottle approaches the septum via a right hemitransfixion incision (in the hands of the right-handed operator) and the creation of subperichondrial and subperiosteal "tunnels." The left perichondrium is elevated to create a left anterior tunnel, and the base of the lip is undermined and the maxillary spine uncovered. The bone is further uncovered outward on either side to the pyriform crests; and the mucoperiosteum is elevated along the floor of the nose, first on the right side then on the left, to create the inferior tunnels. The septal cartilage is gradually moved to the right, off the premaxilla and spine, by cutting the fibers of the joint between the cartilage and bone with a Beaver knife and gradually pushing the cartilage to the right off the bone to join, as a common cavity, the left anterior and right inferior tunnels.

This approach lends itself to the correction of an endless variety of deviations in all areas of the septum, and is adaptable to many situations. It preserves the greatest

amount of mucosa, it may be used in children, and it offers a satisfactory approach in cases of choanal atresia, septal abscess, or hematoma. Cottle does not limit himself to a hemitransfixion incision, but may employ transfixion as well. Considering the inferior tunnels unnecessary in some cases, he variously employs the salient features of the Metzenbaum procedure and other methods as they may fit into this "Maxilla-premaxilla" approach. This method lends itself admirably to operations involving both the septum and nasal pyramid.

Conclusion

Various men in the field of septal surgery have recently reemphasized the importance of a firm septum. They may vary as to why this is important, but they reach a common ground in believing that septal cartilage belongs in the septum rather than in a receptacle. The procedure should be "septoplasty"—not submucous resection.

There are still deficiencies in the field, and the search for solutions to special problems continues. It becomes more and more evident that septal surgery cannot be divorced from combined surgery of the septum and the nasal pyramid, and that future advances in the field will be in the direction of surgery of the entire nasal structure.

THE HIGH COST OF SCIENTIFIC COMMUNICATION

It is worth noting that among all industries, the pharmaceutical industry employs the highest ratio of scientifically-trained men to other employees—4.5 per 1,000, as against 1.27 for the chemical industry, 0.62 for petroleum, and 0.43 for the electrical industry. As a measure of their work in 1961 alone, the 16,000 scientists of the pharmaceutical industry published 5,000 scientific papers on their studies. A 1959 report in *Science* magazine by J. C. Fisher, of General Electric, broke down this publishing activity statistically in an interesting way. He calculated that each paper cost its company \$26,000. Or to put it another way, it was the cost of a year's work for 1.37 scientists on the staff.—*The Science and Economics of Industrial Research*: John E. McKeen, Chairman of the Board and President, Chas. Pfizer & Co.

The Community's Newest Medical Facility - The Nursing Home

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GARNER

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The widespread publicity given the King-Anderson bill testifies to the expanding problem of the care of the aged and the chronically ill. Even without the publicity, the physician has only to survey his own practice to realize that the problem is growing ever larger and more complex.

The professionally staffed nursing home is one answer to the problem of caring adequately for patients who need nursing and convalescent care. During the past six years licensed nursing homes in North Carolina have increased from five pioneer operations to 42, with accommodations for 1397 patients.

In 1961 the General Assembly transferred the responsibility of licensing nursing homes to the State Board of Health. On May 10 of last year the Board adopted the rules and regulations of the Medical Care Commission and established a Nursing Home Advisory Council representing medicine, hospitals, nursing homes, pharmacy, industry, public welfare, and consumers of nursing home services.

The specified tasks of the Council included the responsibility of consulting and advising with the State Board of Health on matters of policy affecting the administration of the nursing home program, in its development of rules, regulations, and standards provided under the law; and to hear, consider and make recommendations concerning appeals of purveyors of these services under this program pursuant to regulations adopted by the State Board of Health. At its first meeting in October, the

Council voted to meet quarterly in an effort to up-grade the nursing home program and give it community status.

Because of the newness of the nursing home as a medical facility, and because of the difficulty of introducing it to physicians and laymen, the peculiar nature of this service is widely misunderstood.

Definition

At the 1961 meeting of the Executive Council of the Medical Society of the State of North Carolina, a tentative definition of the term "nursing home" received formal endorsement. Since that time, minor modifications have caused it to read as follows:

A Nursing Home is a facility which is designed and equipped to provide nursing care and related medical services for three or more persons, unrelated to the licensee, who have ailments for which individualized medical and nursing care is indicated. These patients do not require the special facilities of a general hospital but will require services not usually found in the home for the aged (boarding home). These patients will require continuing medical supervision; however, nursing care is their primary need and shall be provided by or under the supervision of a registered nurse.

A careful distinction needs to be made between a nursing home, with its special medical and nursing facilities, and a home for the aged and infirm. The latter is a place for "persons whose principal need is a home with custodial and sheltered care as their age and infirmities require." "Residents" here may be given congregate services as distinguished from the individualization of medical-nursing care required by nursing home patients. In other words, assistance with personal care of a *resident* is the major function of the *boarding home*, as opposed to the medical-nursing care of a *patient* in the *nursing home*.

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Services

With the above definition and clarification in mind, what may one expect in the way of care for his patient in a nursing home? The nursing home is equipped and staffed on a 24-hour basis to provide safe and adequate chronic and convalescent patient care. This would imply an organized continuous nursing service under professional direction, regular medical supervision, maintenance of basic records, rigid drug control, and the equipment and facilities essential to an adequate standard of nursing care. The latter would include such necessary items as a nursing station and utility room. Proper food service, including the provision of prescribed, modified, or therapeutic diets, should be insured.

One could also expect other services designed to preserve the patients' dignity, to recreate a sense of security and usefulness, and to provide opportunity for maximum rehabilitation. This necessitates recreational and diversional activities and basic physical therapy for those capable of benefiting from it.

Representative procedures which a physician could expect to be available in a nursing home are as follows:

1. Administration of prescribed drugs—oral, parenteral, etc.
2. Administration of intravenous fluids and blood in keeping with medical practice.
3. Administration of oxygen
4. Colostomy care
5. Enemas
6. Bowel and bladder care
7. Catheterization—performance, care and irrigation
8. Changing and care of sterile dressings and compresses
9. Diabetic urine testing (acetone, sugar, albumin)
10. Feedings per nasogastric tubes
11. Prevention and care of decubitus ulcers
12. Suctioning
13. Taking temperature, pulse, respiration and blood pressure.
14. Tracheotomy care
15. Professional nursing care, observation, and judgment for those patients whose needs cannot be spelled out in terms of procedures.

Understood, of course, is that all the above services are adequately supervised by

registered or licensed practical nurses carrying out medical orders. The recent survey of the 42 licensed homes disclosed that 35, provided nursing coverage on a 24-hour basis, with 30 having their nursing services under a registered nurse. The other seven homes exceed minimum staffing requirements for licensure. The Nursing Home Advisory Council has recommended to the State Board of Health that, effective in January, 1963, all nursing homes will be under the supervision of a registered nurse, and that either a registered nurse or a licensed practical nurse be on duty at all times.

All patients are under the continual supervision of a physician, who is either on call or on a contractual basis. Adequate medical records are maintained. Provisions are made for x-ray, laboratory, and other diagnostic procedures. Drugs and other specialized services are available on a prescription basis.

The physical facilities of all institutions have met the rigid requirements of the State Insurance Department to safeguard the patients and other people in the building from fire and structural hazards. The Sanitary Engineering Division of the State Board of Health has approved the water supply, the kitchen, food preparation area, disposal of waste, and other related necessities.

Physicians may consider referring patients to nursing homes for reasons of economy (rates in a nursing home are only a fraction of the daily costs in a general hospital); to provide the patient with a more home-like environment; to make available only those services which directly bear on the patient's need during convalescence; and to free hospital beds for their intended use.

Summary

Doctors concerned with obtaining convalescent care for those patients who are no longer in need of treatment in a general hospital may consider the facilities and services of a nursing home licensed by the State Board of Health. The nursing home is conceived as being that facility which provides continuing nursing care under medical supervision for such patients.

Nursing homes should not be confused with boarding homes, which are restricted to services considered as personal care for "residents." Instead, they should be regarded as medical facilities which are prepared to render skilled nursing care under written orders of the attending physician.

Note

The following is a list of counties with their licensed nursing homes. Each institution is coded as to nursing care as follows:

RN—Twenty-four-hour staffing with at least one registered nurse on duty.

LPN—Twenty-four-hour coverage by a licensed practical nurse.

E—Exceeding minimum requirement for licensure.

U—Under construction or investigation for licensure.

S—Meeting minimum standards for licensure.

Beaufort—(RN) Riverview Manor Nursing Home, Washington

Buncombe—(U) Havenrest Manor, Asheville

Burke—(E) Oaklawn Convalescent and Rest Home, Inc., Morganton

Cabarrus—(RN) Timrick Hall, Concord; (RN) Nightingale Home, Inc., Concord

Cleveland—(E) Turner's Convalescent and Nursing Home, Shelby

Craven—(RN) Neuse Forest Nursing and Convalescent Nursing Home, New Bern

Cumberland—(RN) Eastover Nursing Home, Inc., Fayetteville; (RN) Whispering Pines Convalescent Nursing Home, Fayetteville

Davidson—(RN) The Haven, Inc., Lexington

Davie—(RN) Lynn Haven Nursing Home, Mocksville

Durham—(LPN) Hillcrest Convalescent Home, Inc., Durham; (U) Cobb Nursing Home, Durham;

(U) Pine Knoll Nursing Home, Durham

Forsyth—(RN) Dunham Nursing Home, Clemmons; (LPN) Oakwood Knolls Nursing Home,

Kernersville; (RN) Sunset Hills Nursing and Convalescent, High Point; (RN) Virginia's Lodge, Winston-Salem; (RN) Forsyth County Nursing Home, Winston-Salem

Guilford—(RN) Clapp's Nursing Home, Pleasant Garden; (RN) Maryfield Nursing Home, High Point

Halifax—(RN) The Brown Nursing Home, Enfield

Harnett—(RN) Adams and Kinton Nursing Home, Lillington

Henderson—(RN) Anderson Nursing Home, Hendersonville

Iredell—(U) Hill Haven Nursing Home, Statesville

Lee—(RN) Keller Convalescent and Nursing Home, Sanford

Lenoir—(RN) Lenoir Nursing Home, Kinston

McDowell—(U) Hilltop House Nursing Home, Marion

Mecklenburg—(RN) Elizabeth Nursing Home, Charlotte; (RN) Hillcrest Manor Nursing Home,

Charlotte; (RN) Joyner's Nursing Home, Charlotte; (RN) Providence Home, Inc., Matthews;

(E) White Cap Nursing Center, Charlotte; (U) Methodist Home Nursing Home, Charlotte

Moore—(U) Andrews Nursing Home, Pinehurst

Nash—(RN) Nash-Mont Nursing Home, Rocky Mount

New Hanover—(RN) Grotgen Nursing and Convalescent Home, Wilmington

Northampton—(RN) Roanoke Valley Nursing Home, Rich Square

Pasquotank—(RN) W. R. Winslow Memorial Home, Inc., Elizabeth City

Randolph—(E) Clapp's Nursing Home, Asheboro

Rowan—(RN) Bland Haven Nursing Home, Salisbury; (LPN) Jo-Lene's Nursing Home, Salisbury

Vance—(LPN) Henderson Restorium, Inc., Henderson

Wake—(LPN) Glenwood Hills Nursing Home, Raleigh; (RN) Mayview Convalescent Home,

Raleigh; (S) Rogers Nursing Home, Wake Forest

Wayne—(RN) Forest Hill Rest Home, Inc., Goldsboro

Wilson—(E) Friendly Elm Nursing Home

Report from The Duke University Poison Control Center

JAY M. ARENA, M.D., *Director*

CYANIDE

Cyanide is one of the most rapidly acting of all poisons. In the form of the extremely volatile hydrocyanic acid (prussic acid), its inhalation causes severe toxic effects leading to death in a very few minutes. The chemist Karl Wilhelm Scheel, discoverer of this acid, was killed by its vapors.

Hydrogen cyanide and its derivatives (acrylonitrile, cyanamide, cyanogen chloride, cyanides, and nitroprussides) are used as fumigants, metal cleaners, and in the refining of ores, production of synthetic rubber, and chemical synthesis. In the home, cyanides are present in silver polish, rodenticides, and the seeds of apple, peach, plum, cherry and almond.

The MAC of hydrogen cyanide is 10 ppm., and the fatal dose is approximately 50 mg.

(3/4 grain). Cyanide compounds, which are capable of releasing hydrocyanic acid, are general protoplasmic poisons. They paralyze respiration of all cells of the body by interfering with the ferments controlling the oxidative processes of cell respiration. For this reason cyanide action has been described as "internal asphyxia." The respiratory center of the medulla ceases to function because its nerve cells can no longer obtain oxygen for their respiration. The venous blood of a patient dying of cyanide is bright red, and resembles arterial blood because the tissues have not been able to utilize the oxygen brought to them.

While it is true that cyanide combines with hemoglobin to form a stable nonoxygen-bearing compound, cyanhemoglobin, this substance is formed only slowly and in small amount. Death is not due to cyanhemoglobin, but to inhibition of tissue-cell respiration.

Cyanide is detectable by its odor and by specific chemical tests. After the oral ingestion of cyanide salts, absorption of some of the material occurs so rapidly and produces death so quickly that the remainder is often unabsorbed in the gastric contents and should be sought there. The spectroscope also aids in the identification of cyanhemoglobin.

Symptoms may appear with dramatic suddenness when large doses are taken, or may be delayed several minutes. Death usually occurs within an hour. Mortality from cyanide is reported as high as 95 per cent. The longer the patient is kept alive, the better are his chances for recovery, because the body detoxifies cyanide by combining it with sulphur compounds to form stable and inactive sulphonycyanates.

The symptoms which occur in quick succession are giddiness, headache, palpitation, dyspnea, and then unconsciousness. There may be some evidences of local irritation from the salts, and this may result in nausea and vomiting. As a rule, depression is already marked before this can occur. Central stimulation is very fleeting, and what are usually called cyanide convulsions are in reality terminal asphyxial convulsions.

The breath, as well as the tissues of the body after death, reveals the tell-tale odor of cyanide.

Treatment must be rapid and efficient. The local treatment consists of removing the unabsorbed poison by lavaging the stomach with copious amounts of water through the gastric tube. This measure should be continued until all odor of cyanide is gone from the lavage fluid. Lavage should be performed even though the patient has survived the ingestion for some time, because a large amount of cyanide, especially if it is in a crude form, may still be unabsorbed. A solution of potassium permanganate (1:5000), or hydrogen peroxide (1 per cent of the official preparation) may be given as a chemical antidote if handy. No time should be wasted in obtaining them, however, because their value is not great.

The toxicity of cyanide may be reduced by combination with methemoglobin, produced by giving 0.5 Gm. intravenous injections of sodium nitrite or inhalations of amyl nitrite. Also cyanide can be converted into relatively nontoxic thiocyanate by giving sodium thiosulfate, 10 to 25 Gm. of a 25 per cent solution, intravenously.

Amyl or sodium nitrite and sodium thiosulfate have a potentiating action in detoxifying cyanides. The mechanism depends on: (1) the successful competition for cyanide ions by methemoglobin with the respiratory enzyme, ferricytochrome oxidase; and (2) the conversion of the cyanide to thiocyanate. Treatment then should be as follows:

1. Break pearls of amyl nitrite, one at a time, in a handkerchief. Hold the latter over the patient's nose.
2. Fill a syringe with 10 ml. of a 3 per cent solution of sodium nitrite (0.3 Gm.) and another with 50 ml. of a 25 per cent solution of sodium thiosulfate (12.5 Gm.)
3. Inject the solution of sodium nitrite and the solution of sodium thiosulfate through the same needle and vein. Discontinue amyl nitrite inhalation.
4. If the poison was taken by mouth, gastric lavage must be done.
5. If poisoning signs appear or recovery

is slow, repeat sodium nitrite and sodium thiosulfate in full doses.

6. In cases of mercuric cyanide poisoning, injection of BAL may be necessary.

The Medical Spectator

BEZOARS AND MADSTONES

The transition from folk to pharmaceutical-house medicine has done many things to American life. The old drug store with white marble-topped tables, wire-back chairs, and mysterious, rather romantic smells has given way to the supermarket and to the machine rather than to personal polypharmacy. All this provokes nostalgia, prompts investigation, and calls for reassessment of values in a world gone materialistically mad. Or at least we are so led to believe by legislative moralists and pundits in paper backs.

On more careful examination, as usual, it will be found that the good old days weren't that good, and that the legislative moralist, played currently by Senator Kefauver, overstates his case as did the ecclesiastic moralists of ages past. The conservative white-wash now being applied by the drughouses also seems rather overdone, and when critically viewed is dingy with disused virtue.

The delightful part of this drama is that though it has been played on so many stages in so many civilizations, modern protagonists behave as if they are the discoverers of something new. For folk medicine was organized and profitable to some degree, and has been the source of many remedies unimproved by even the most ethical of drug-makers, digitalis and belladonna being examples.

The recent rape of Goa by virtuous India, led by that idol of legislative moralists, Nehru, serves to focus attention on this contrasting of ancient and modern ways. Goa had remained a Portuguese enclave, a reminder of the mother country's commercial heyday several centuries ago. When Goa was a bursting commercial center, the Hapsburgs were in power in Spain and Austria, and Portugal's future seemed expansive be-

yond prediction. The Fuggers of Augsburg supplied the money for the expansion of these Catholic nations as they evangelized and exploited the heathen.

Like all good businessmen, the Fuggers recognized the value of having information before competitors and of making profit whenever and wherever possible. So in the sixteenth century their commercial correspondents in Europe and Asia supplied invaluable information, and in so doing gave us a striking picture of the times, unrestricted by any attempt at nobility or high flown language.

One of the wonder drugs of the sixteenth century was the Bezoar, an Arab remedy for poisoning said to be of therapeutic value beyond compare. A particular Persian and Indian goat called Pazain, "in whose Stomach concretes the stone called Bezoar," was the source of this miraculous cure, which was finally subjected to critical analysis in 1580 by Ambroise Paré and found wholly ineffective. Yet in the same year a Fugger correspondent wrote "from Cochin in India, the 10th day of January, 1580," that "The Portugese here (in Goa) are even more diligent than the people in Lisbon. The Pietras de Bezoar are always very dear and not good. After the ships have departed I will try to obtain privately some of these stones that are good, and to send them to thee next year."

Eventually Paré's word was heeded, and bezoars are now primarily of interest because of the unusual phyto- and trichobezoars encountered unexpectedly at surgery. Yet as drug names are sometimes changed for reasons of psychology and profit, so the bezoar, now called "madstone", survived into modern times; for a madstone is a concretion found in the gullet of the male deer and was once in the South considered quite effective in the treatment of snake and mad-dog bites. Dr. H. C. White discussed the problem before a British learned society in the early years of this century and noted the antiquity of the superstition, "even in New England in Puritan times."

As far as is known, bezoars and madstones have not been subjects of drughouse research or Congressional inquiry.

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JUNE, 1962

ONE HUNDRED AND EIGHTH ANNUAL SESSION

For the first time since the Society's last meeting in Pinehurst, the attendance at the one hundred eighth Annual Session in Raleigh showed an increase over the previous year's registration. An even 700 members registered, as compared with 607 in Asheville last year. Guest physicians, exhibitors, Auxiliary members, and Student A.M.A. members brought the grand total to 1503.

High Lights of the Business Session

The Executive Council held an all-day session beginning at 9:30 Saturday morning and lasting until 6:30 that afternoon. The House of Delegates began its first session at 2 P.M. on Sunday, and also had brief meetings on Monday and Tuesday. No attempt will be made here to record the entire

proceedings of the Council and the House of Delegates, but only the high lights.

The most widely discussed action of the Council and of the House was the resolution in regard to the Social Security medical care program. This is discussed in a separate editorial.

Dr. T. S. Raiford, reporting for the *Ad Hoc* Committee on Blue Shield and Blue Cross, announced that the Hospital Care Association had been accredited by the national agency for Blue Shield insurance on April 1. He also stated that the board of Hospital Care was ready and willing to cooperate in a merger with Hospital Saving Association. Dr. Shuford announced that the Senior Citizens Doctors Policy is to be administered on a local rather than a national level. Individuals with incomes to \$2500, or families with \$4000, are to be covered.

Executive Jim Barnes reported a good year for the Society, in spite of the drop in JOURNAL advertising resulting from the Kefauver Committee's investigation. The membership in 1961 stood at an all-time high of 3,300, and this year bids to show a further increase.

Dr. Sam Ravenel's report on poliomyelitis vaccine policy was received with much interest. He recommends that during the summer only the Salk vaccine be used, except in case of an epidemic. For the fall, winter, and early spring, however, a mass immunization program using the oral vaccine was recommended. He stated that since Salk vaccine had been generally used, the number of deaths from paralytic polio had dropped from 162 per million to 5 per million. It is to be hoped that mass immunization with the oral vaccine will eliminate this crippling disease altogether.

The report of the Nominating Committee was given on Monday afternoon, and was unanimously adopted. The officers elected were:

President—John R. Kernodle, M.D., Burlington

President-Elect—John S. Rhodes, M.D., Raleigh

First Vice President—H. Fleming Fuller, M.D., Kinston

Second Vice President—Jacob H. Shuford, M.D., Hickory

Secretary—Charles W. Styron, M.D., Raleigh

Speaker—John C. Reece, M.D., Morganton

Vice Speaker—T. S. Raiford, M.D., Asheville

Elected as delegates to the American Medical Association were: Drs. Millard D. Hill of Raleigh (alternate—George T. Wolfe, Greensboro); and Bodie T. Clark, Wilson (alternate—Eben Alexander, Jr., Winston-Salem).

The Nominating Committee is to be congratulated on its judgment. President-Elect John S. Rhodes has well earned the honor, as have the other officers elected. The choice of Dr. Charles W. Styron to succeed Dr. Rhodes as secretary was a popular one.

Society Functions

The Memorial Service in the Sir Walter on Sunday night was well attended and as usual the chairman, Dr. Charles H. Pugh of Gastonia, had arranged an impressive program. Dr. James Earl Danieleley gave the address, and the Cary High School Glee Club furnished a splendid musical program.

Dr. Roscoe D. McMillan acted as toastmaster for the President's Dinner, which this year was held in the Virginia Dare Room of the Sir Walter. This was a much more satisfactory location than the State College campus. Although Dr. McMillan had been suffering from a painful back, one would never have known that he was not in his best form. After President-Elect John R. Kernodle had been installed and had taken the oath of office, he made a few brief, but appropriate, remarks in acceptance. Then followed an address by Dr. Normal Welch, Speaker of the House of Delegates of the American Medical Association. This was probably the high light of the whole meeting, and is to be published in the NORTH CAROLINA MEDICAL JOURNAL.

General Sessions

The excellent address by Dr. Claude Squires given before the First General Session Monday morning was published in the May issue of this JOURNAL. The rest of the First General Session was devoted to a discussion of recent advances in therapeutics.

The Second General Session was featured by Governor Sanford's address on highway safety, which is also to be published in this JOURNAL. A clinicopathologic conference before the Governor's address, and a panel discussion of "Current Methods of Treating Cardiovascular Disease" made a full and profitable morning.

The General Session on Wednesday morning was devoted to a Conjoint Session with the Board of Health, the report of the Committee on Scientific Awards, and recognition of the Fifty Year Club. The Honorable Chet Holifield spoke on civil defense, and Brigadier General Howard Doan, Deputy Surgeon General of the United States Army, spoke on "The Impact of Medical Research on Army Operations." After this, President John R. Kernodle gave his inaugural address, which is published in this issue of the JOURNAL.

Following these addresses was the election of seven members of the North Carolina Board of Medical Examiners, for staggered terms of two, four, and six years. The new board is composed of: six-year term—Drs. James E. Davis, Durham; Clark Rodman, Washington; and W. Boyd Owen, Waynesville; four-year term—Drs. Joseph J. Combs, Raleigh, and H. Lee Large, Charlotte; two-year term—Drs. Ralph G. Templeton, Lenoir, and Frank Edmondson, Jr., Asheville.

Dr. Julius A. Howell of Winston-Salem was elected to the board of trustees of Hospital Saving Association. Dr. J. Street Brewer of Roseboro was reelected to the board of Hospital Care Association, and Dr. Harry L. Johnson of Elkin was reelected to the board of the North Carolina Medical Care Commission.

Section chairmen elected were: Internal Medicine—Dr. Frank Sohmer, Winston-Salem; Obstetrics and Gynecology—Dr. Fletcher Sluder, Asheville (secretary, Dr. Julian Brantley, Greensboro); Pathology—Dr. H. Z. Lund, Cone Hospital, Greensboro (secretary, Dr. Luther W. Oehlbeck, Lenoir); Student A.M.A. Chapters—Bruce Caldwell, University of North Carolina, Chapel Hill.

Although the Nominating Committee had

named Raleigh as the 1965 meeting place, a motion to reconsider this action was passed by virtually unanimous vote of the House of Delegates, and an invitation to go to Charlotte in 1965 was accepted, also unanimously.

While the Wake County Medical Society did all that could be expected in the way of hospitality, it was evident that Raleigh, because of the distance between the headquarters hotel and the meeting places on the State College campus, is not a very satisfactory meeting place.

* * *

Editorial Notes

A resolution that met with universal approval was adopted by the House of Delegates: To recommend that ambulances be required to conform to the same traffic regulations as other passenger vehicles. There have been too many accidents and fatalities caused by excessive speed in driving ambulances.

* * *

It is doubtful if our Northern friends appreciate the sacrifice our Society has made in offering Negro physicians the privilege of scientific membership. Although the number in the Society has increased considerably since our last meeting in Pinehurst, the attendance has been little more than half the number in those "good old days." Incidentally, did any Negro physician attend this last meeting?

* * *

As a token of appreciation of the fine service rendered by Jim Barnes, out-going President Claude Squires gave him and his wife Sadie a gift certificate during the President's Dinner.

* * *

During the meeting, chartered busses ran back and forth between the Sir Walter Hotel and the coliseum. Unfortunately, this arrangement was not mentioned in the program, and no public announcement of it was seen. As a consequence, the busses sometimes made a trip with only one to three passengers.

The Sunday afternoon meeting of the House of Delegates was adjourned in time to

allow delegates to hear the televised debate over Channel 5 between Dr. Hubert Poteat of Smithfield and Mr. Zuman, who represented the Department of Health, Education and Welfare. It was the consensus of all who heard it that Dr. Poteat was the winner by a wide margin.

* * *

RESOLUTION ON MEDICAL CARE OF THE OLD

In this issue appears the resolution adopted unanimously by the House of Delegates on May 8, stating the position of the State Medical Society on medical care of the older patient. This resolution caused more discussion in the Executive Council, the House of Delegates, and the Society membership than any other action of the Society. The Resolutions Committee, after a thorough study of the three resolutions referred to in the preamble, wrote a resolution that was apparently satisfactory to all. In an editorial entitled "Sensible Restraint Among State's Doctors," the *Twin City Sentinel* (Winston-Salem) for May 10 commented:

...no matter what happens in Washington on medical aid legislation, doctors in this state will continue to treat any and all patients to the best of their ability.

It was inconceivable that doctors we know and trust would ever have been a party to any action other than such a pledge to begin with. But for the sake of their own position on this controversial matter, as well as their patients' confidence in them, it was right that they put this pledge on the record.

The North Carolina Medical Society owes a vote of thanks to the members of the Resolution Committee—Drs. John Rhodes, John Reece, and Ed Bivens—for a piece of work that deserves the overworked term "statesmanlike."

* * *

"THE HIGHEST PRICED LOBBYIST"

While few M.D.'s see eye to eye with Dr. Blue Carstenson, executive head of the National Council of Senior Citizens for Health Care Through Social Security, very few will question a statement he made in a letter to *Newsweek* for April 23: "The senior citizens and the people of this country have the highest priced lobbyist possible namely, the

President of the United States . . . to work directly with the members of Congress."

It is doubtful if, within the memory of the oldest citizen, any other president ever staged such a high pressure campaign as President Kennedy is now doing to force the members of Congress to pass the King-Anderson bill. The recent meeting in Chapel Hill was one of the many held or to be held in every state in the Union. As Raymond Moley said in *Newsweek*, April 30, "there will be wheeled into action the vast forces of the propaganda ministry . . . An immense aggregation of Federal employees, labor-union officers, and elderly partisans of the President's plan will appear. In Massachusetts alone there will be 250 speakers delivering 5,000 harangues."

There is a federal law against using "money appropriated by Congress . . . to influence the vote of any member of Congress in any legislation," and providing that "an officer or employee of the United States or any department thereof" who violates this rule shall be subject to fine or imprisonment or both. Although a lawyer might find excuse for the President to authorize the use of government funds in such an attempt to influence legislation, to a plain blunt layman it seems to be a violation of the spirit if not the letter of the law.

* * *

WHAT ABOUT UNDERGROUND SHELTERS?

Congressman Holifield's address before the Third General Session, which appears in this issue, was a strong argument for underground shelters against blast and fire nu-

clear hazards as well as against fallout. Since Congressman Holifield is accustomed to argument, no doubt he will accept a dissenting editorial opinion.

In his address, Mr. Holifield refers to Dr. Edward Teller's series of articles published in the *Saturday Evening Post* and condensed in *Reader's Digest* for May. He failed to state, however, that eight scientists equally as eminent as Dr. Teller—three from M.I.T., three from Cornell, and two from Harvard—published in the *Saturday Evening Post* for April 14 an answer to Dr. Teller. They agreed that "Dr. Teller's position is both unrealistic and unsound," and that "in a condition of two worlds poised in mutual threat and mutual fear, the start of such a massive shelter program might well trigger nuclear war."

The eight scientists agree that the cost of adequate shelters on a nationwide scale would be ten times the 20 billion dollar estimate given by Dr. Teller and Mr. Holifield.

At least one person who has read both Dr. Teller's articles and the reply of eight scientists believes that the latter had the better argument.

Let us keep from becoming panicky and acting from fear rather than from reason. To deplete our national resources by spending the billions required to erect shelters of very doubtful value would play into the hands of the Russians, who are not themselves engaged in such a program. Let us not repeat the mistake made when large sums were spent on "evacuation routes" now discarded as worse than useless.

Whenever our government seeks to invade a new field, it always denies that federal aid means federal control—and, almost in the same breath, it claims the right to direct any other activity in which it participates financially. In the field of federal medicine, we can expect, as Professor Hayek suggests, that a social service bureaucracy will tell us what to do and how to do it, and, in addition, we will pay whatever tax is needed to support its self-righteous propaganda and to perpetuate its supremacy.—Smith, R. O.: *The Economics of Medical Care*, Virginia Med. Monthly 89: 147 (March) 1962.

Committees & Organizations

COMMITTEE ON RESOLUTIONS

RESOLUTION ON MEDICAL CARE OF THE OLDER PATIENT

*Adopted by the House of Delegates
May 8, 1962*

In consideration of the resolutions introduced by the Johnson County Medical Society, the Pamlico-Albemarle Medical Society, and the recommendation of the Chairman of the Public Relations Committee of the Medical Society of the State of North Carolina, the Reference Committee on Resolution recommends approval of the following resolution:

1. The members of the Medical Society of the State of North Carolina pledge to provide medical care to the full extent of their ability to all their patients and to the citizens of North Carolina in full keeping with their responsibilities as physicians.

2. We declare our resolve to resist vigorously House Bill 4-222 known as the King Anderson Bill and other types of compulsory legislative proposals to increase taxation to support the social security mechanism to provide health care for the aged. We oppose any socialistic system which denies the patient the right of freedom of choice.

3. We dedicate ourselves to the improvement of the quality of medical care now available to the American people and urge the use of funds already available under existing legislation and the use of voluntary systems of health insurance to provide medical care for all the people.

4. We confidently call upon our representatives in the Congress of the United States to be guided in their judgment on these important issues by their knowledge of the present excellence of American Medical care practiced in an atmosphere of freedom.

Respectfully submitted,

JOHN C. REECE, M.D.

EDWARD S. BIVENS, M.D.

JOHN S. RHODES, M.D. Chairman
Committee on Resolutions

Bulletin Board

Coming Meetings

Symposium on Opportunistic Fungal Infections—Duke University Medical Center, Durham, June 28-30.

Duke Postgraduate Course—Morehead Biltmore Hotel, Morehead City, July 16-21.

Southern Obstetric and Gynecologic Seminar—Grove Park Inn, Asheville, July 23-28.

North Carolina Board of Medical Examiners—meeting to interview applicants for licensure by endorsement of credentials—Mayview Manor, Blowing Rock, July 27.

New Hanover County Medical Symposium—Wilmington, July 28.

American Medical Association Annual Session—Chicago, June 25-29.

A.M.A.—American College of Chest Physicians, Scientific Session—Chicago, June 25.

Symposium for General Practitioners on Tuberculosis and Other Pulmonary Diseases—Saranac Lake, New York, July 9.

Sixth Annual Rocky Mountain Cancer Conference—Brown Palace West, Denver, Colorado, July 13-14.

NEWS NOTES FROM THE

BOWMAN GRAY SCHOOL OF MEDICINE OF WAKE FOREST COLLEGE

Eleven papers and one exhibit, prepared in departments of the Bowman Gray School of Medicine, were presented at the forty-sixth annual meeting of the Federation of American Societies for Experimental Biology in Atlantic City, New Jersey.

Presenting papers were Dr. Ivan W. F. Davidson, assistant professor of physiology and pharmacology; Dr. Herman E. Schmid Jr., instructor in physiology and pharmacology; Dr. Carlos Rapela, associate professor of physiology and pharmacology; Dr. John A. Gergen, assistant professor of physiology and pharmacology; Dr. Carmelo Nepomuceno, cardiovascular fellow; Dr. Taruka Okino, cardiovascular fellow; Dr. Hugh B. Lofland, Jr., associate professor of biochemistry; Dr. Thomas B. Clarkson, Jr., associate professor of experimental medicine and director of the medical school's vivarium; Dr. Robert W. Prichard, professor of pathology; Dr. Camillo Artom, professor of biochemistry; and Dr. Henry F. Mengoli, research assistant in pathology.

The exhibit, showing how electronics was used to develop the first practical instrument capable of direct blood flow measurement in unopened arteries and veins, was prepared by Dr. Merrill P. Spencer, associate professor of physiology and pharmacology.

* * *

Plans are under way for the development of a new program of physical medicine and rehabilita-

tion at the Bowman Gray School of Medicine.

The program, to be known as the R. Gardner Kellogg Memorial for Physical Medicine and Rehabilitation, will be established through a gift representing the income from an endowment fund amounting to approximately \$1,000,000.

A physician specializing in the field of physical medicine and rehabilitation will be added to the faculty of the medical school to direct and coordinate the professional activities of the program. The program will include teaching, research, and service in rehabilitation.

Negotiations are under way for a hospital bed patient facility in the near vicinity of the medical school. Until special facilities are provided, a limited number of hospital beds will be available to the program in the North Carolina Baptist Hospital.

* * *

The Board of Trustees and the Board of Visitors of Wake Forest College presented a 1962 Thunderbird to Dean C. C. Carpenter in recognition of his 36 years of service to the school. Dr. Carpenter has served as dean of the medical school for 26 years, making him the oldest medical school dean, in length of service, in the nation.

* * *

Joseph R. Grassi, assistant professor of clinical psychology and director of the Graylyn Children's Center of the Bowman Gray School of Medicine, has been granted a two-year leave of absence to attend the University of London for advance research study and training leading to the Ph.D. degree.

Miss Sandra Kirkham, clinical psychologist, has been promoted to director of professional services at the Children's Center. Dean C. C. Carpenter will assume responsibilities for the administrative and business operations of Graylyn. Billy John Hammond, formerly with the Forsyth County Schools as instructor in the Mary Reynolds Babcock remedial reading program, will become supervisor of reading services at Graylyn, effective July 1.

* * *

Dr. Henry G. Cramblett, associate professor of pediatrics, is the recipient of a \$109,000 grant for career development in research from the National Institutes of Health. The grant, which will become effective July 1, will support Dr. Cramblett during a five-year study of infectious diseases, with major emphasis in the field of virology.

* * *

Dr. Walter J. Bo, associate professor of anatomy, has been awarded three grants, totaling \$37,800, to study the effects of hormones and vitamin A on normal and abnormal growth of the reproductive system of small female animals. He is the recipient of an \$18,465 grant from the

American Cancer Society, a \$14,600 grant from the National Science Foundation and a \$4,800 grant from the National Vitamin Foundation.

* * *

Dr. Charles E. McCreight, assistant professor of anatomy, has been awarded a \$29,785 grant by the National Institutes of Health. The grant will support three years of research on factors involved in the restoration of kidney tubular tissues following removal of or damage to portions of the kidney.

* * *

Dr. John H. Felts, assistant professor of medicine, spoke on "Combined Chelation, Hemodialysis and Alkalinization—Possible Treatment for Iron Poisoning" at a meeting of the American Society for Artificial Internal Organs in Atlantic City, New Jersey.

* * *

Dr. D. Leroy Crandell, associate professor of anesthesiology, was guest lecturer for the thirty-fifth annual Spring Congress in Roanoke, Virginia. He spoke on "Preanesthetic Evaluation and Preparation" and "Anesthetic Management of Otolaryngological Procedures."

* * *

Dr. Richard C. Proctor, associate professor of psychiatry, spoke on "Improved Management of Incapacitating Anxiety States" at the Symposium on Newer Psychotropic Drugs and Human Behavior, sponsored by the Presbyterian Medical Center, in San Francisco.

* * *

Dr. James F. Glenn, associate professor of urology, presented a paper on "Chemotherapy in Urology" and a movie on "Surgery and Management of Urologic Malignancies" at a meeting of the Southeastern Section, American Urologic Association in Clearwater, Florida. The exhibit won third prize.

NEWS NOTES FROM THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE

The University of North Carolina School of Medicine recently held open house for college students from throughout the state. Students and a pre-medical adviser from the following schools attended: Wake Forest College, Guilford College, Elon College, N. C. State College, Woman's College, Davidson College, Duke University, Western Carolina College of and the University of North Carolina.

At a general meeting a series of short talks were given by faculty and students. Dr. W. R. Berryhill, dean of the School of Medicine, welcomed the visitors.

Tours of the Medical School and hospital followed the presentations, after which lunch was served to all visitors.

* * *

Dr. Luther Talbert, assistant professor of obstetrics and gynecology, served on the faculty of

a seminar at the University of Missouri School of Medicine on April 30.

Outstanding authorities throughout the east acted as faculty members for this seminar.

* * *

The University of North Carolina School of Medicine served as host to the annual meeting of the Southeastern Dermatological Association April 28-29.

Approximately 150 dermatologists representing all the states of the southeast attended the two-day meeting.

Some 25 clinical cases were presented for study and discussion by faculty members of the School of Medicine.

Those presenting cases included: Drs. Donald C. Abele, George W. Crane, Jr. Joseph M. Hitch, Herbert Z. Lund, Allen D. Smith, and Clayton E. Wheeler, Jr.

* * *

A large number of parents and friends of medical students at the UNC School of Medicine attended the sixth annual Parents' Day on Saturday, April 14.

After registration and tours of the School of Medicine and Hospital, the annual business meeting of the Parents' Club was held. Harry L. Riddle of Morganton, president, presided. Dr. W. R. Berryhill, dean, welcomed those attending and expressed the appreciation of the school for the splendid support given by the club. He spoke briefly of the history of the school, cited numerous awards and honors received by the faculty, and outlined some of the achievements of the school and its graduates. He urged the continued efforts of all parents and friends to help the school secure funds from the next legislature and from private sources for urgently needed additional facilities.

A report on the club's student emergency loan fund was given by Mrs. Zebulon Weaver of Asheville. She advised that \$6,149 had been contributed to the fund and that 44 loans averaging some \$200 each had been made to date to help students over emergencies. She urged continued support of the fund by the parents.

C. Glenn Pickard, President of the Medical School student body, voiced the appreciation of the students for the sympathetic understanding and support given the school by the Parents' Club.

New officers elected for 1962-63 are as follows:

General officers—President: H. L. Pitser, Raleigh

First Vice-President: C. C. Dudley, Huntersville

Second Vice-President: J. C. Cowan, Greensboro

Secretary: Howard Holder-ness, Greensboro

Regional chairmen (Chairmen and Vice-Chairmen listed in order):

Region I: S. M. Blount, Washington; Llewellyn Phillips, Morehead City

Region II: Frank Cella, Raleigh; Dr. Robert Croom, Maxton

Region III: H. H. Aderhold, Greensboro; L. O. Branch, Durham

Region IV: W. T. Harris, Charlotte; Robert Lee Johnson, Hickory

Region V: C. G. Pickard and Wm. F. Algary, Asheville.

Named to a second term as a trustee of the Student Emergency Loan Fund—Mrs. Zebulon Weaver.

NEWS NOTES FROM THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF PUBLIC HEALTH

"We have here in the South a water resource which is unique in the world, which is a treasure having a value beyond estimation."

That was the opinion handed down by Dr. G. Baity of the University of North Carolina School of Public Health at the eleventh annual Southern Municipal and Industrial Waste Conference held in Chapel Hill, April 19-20. Dr. Baity, professor of sanitary engineering and former director of the Division of Environmental Sanitation of the World Health Organization of the United Nations, was one of the keynote speakers for the two-day conference.

The noted public health professor said the earth's resources are divided into two classifications: those that are used up and gone—and those which with proper care and conservation can be regenerated and used over and over again, water being in the latter classification.

"Let us be sobered," he said, "by the reflection that in the face of our scientific knowledge, organizing genius and economic resources, the condition of the water, land and air resources of this country, in general, continue to depreciate. As of now, the forces of degradation are outstripping the forces of betterment."

* * *

Dr. John C. Cassel participated in a panel discussion at the forty-seventh annual meeting of the industrial Medical Association held in Chicago April 11-14. The subject of the panel was "The Use of Medical Records to Yield Maximum Information," which Dr. Cassel discussed from the point of view of epidemiologic studies.

Dr. Cassel, is professor and head of the Department of Epidemiology at the University of North Carolina, School of Public Health.

NEWS NOTES FROM THE DUKE UNIVERSITY MEDICAL CENTER

A new kidney-cooling technique that promises greater safety for patients undergoing long kidney operations was reported by Duke surgeons at a Southeastern Section meeting of the American

Urologic Association held in Clearwater, Florida, in April.

The technique was developed by Dr. Victor A. Politano, associate professor of urology, and described in a paper presented by Dr. William Jones, fellow in urology.

The Duke urologists said that the new development provides a simple way of cooling one or both kidneys to some 30 degrees F. below normal temperature. This permits surgeons to clamp off a kidney's blood supply for as long as six hours without harm to the kidney.

* * *

In a paper read before the recent meeting of the American Surgical Association in Washington, D. C., Dr. W. W. Shingleton, professor of surgery of Duke, described a new development in the treatment of cancer. The method, now being tested at Duke, involves the use of radio-frequency currents to heat small areas of the body in order to increase the effectiveness of anti-cancer drugs.

Special electrodes designed by the Medical Engineering Division of Astra, Inc., Raleigh, are used in conjunction with a radiofrequency generator to induce a magnetic field in the patient's tissues.

Dr. Shingleton noted that the heating technique has been used on one patient to date, following extensive animal experiments to prove its safety. He said that "hot and cold" chemical treatment methods do not offer a cure for cancer, but that "reduction in tumor size has been observed in some subjects, and most of them have had pronounced relief of pain following such procedures."

* * *

Dr. William R. Harlan, of the Department of Biochemistry, was a speaker at the annual meeting of the Federation of American Societies for Experimental Biology held in Atlantic City recently.

Dr. Harlan's paper described research being concluded at Duke in the synthesis of fatty acids by the cells of the liver. His work is supported by grants from the National Institutes of Health, research arm of the U. S. Public Health Service.

* * *

Research grants scheduled to total \$120,000 over a three-year period have been made to Duke University to support studies of nerve activity.

The National Science Foundation has awarded \$50,000, and The National Institutes of Health has allotted \$70,000.

BRINGS RESULTS SOONER AND MORE EFFICIENTLY IN MANY CASES OF Eczema

...and relieves excessively dry,
irritated skin in chronic eczema



The work is being done in the Physiology Department's Laboratory of Cellular Neurophysiology, headed by Dr. John W. Moore.

* * *

Dr. Joseph E. Markee, assistant dean of the Duke Medical School and chairman of the Department of Anatomy, took part in a meeting of the International Television Committee, held April 25-27, in Milan, Italy.

The 100-member committee is concerned with the use of television in education and public service.

A pioneer in the production of movies for medical teaching, Dr. Markee presented a paper entitled "The Maximum Use of Motion Pictures in Television in the Teaching of Anatomy." He also visited medical schools in Switzerland, England and Italy.

* * *

Duke University Medical Center researchers are experimenting with a new process which enables them to make an artificial nose or ear in only one day.

Although not yet in routine use, the prospects for general use in the near future look good. Normally at least two to three days are required to produce such a restoration.

The new process employs molds made of sili-

cone rubber to cast cosmetic prostheses (facial resotations). Work on the project is being carried out in the Center's Department of Medical Art and Illustrations.

The work at Duke is supported financially by the Office of Vocational Rehabilitation, U. S. Department of Health, Education and Welfare.

HOSPITAL CARE ASSOCIATION

Hospital Care Association of Durham has been officially approved as a Blue Shield medical service prepayment plan by the National Association of Blue Shield Plans.

Notice of the approval, effective April 1, was received by E. M. Herndon, executive vice president, in a letter from John W. Castellucci, executive vice president of the national Blue Shield agency in Chicago.

Approval of Hospital Care Association's application for Blue Shield was voted unanimously by the Board of Directors of the National Association of Blue Shield Plans at their annual meeting held in Colorado in April. The application was sponsored by the Medical Society of the State of North Carolina.

"We are proud to have Blue Shield approval for the Hospital Care Association," Herndon said. "We believe this development will strengthen the



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Blue Shield program in North Carolina. The sole objective of the Hospital Care Association is to provide the public with a comprehensive health care program at the lowest practicable cost, and Blue Shield approval will contribute to this objective."

Official recognition of Hospital Care Association as a Blue Shield Plan means that the Durham plan now is eligible to sell the North Carolina State Medical Society's Doctors Program, a prepayment service contract covering medical and surgical professional benefits sold in conjunction with a Blue Cross hospital benefits contract.

Now in its twenty-ninth year of service, Hospital Care maintains headquarters in Durham and has district offices and representatives throughout the state. The Association recently moved into a new home office building at 800 South Duke Street.

The Hospital Care Board of Directors is composed of four hospital administrators representing the North Carolina Hospital Association, four physicians representing the Medical Society of the State of North Carolina, and four public representatives representing the membership. B. R. Roberts, state commissioner of banks, is president of the Association.

NORTH CAROLINA HEART ASSOCIATION

A new leaflet for physicians to give to patients being treated with anticoagulants has been made available by the North Carolina Heart Association, according to the state heart group.

Entitled "Anticoagulants, Your Physician and You," the leaflet is for use by the physician to reinforce his verbal explanation and advice when starting a patient on anticoagulant therapy. It explains the importance of periodic laboratory tests, warns against the possible added effects of other drugs taken without a physician's prescription, and reminds patients to mention their anticoagulant medication to other physicians or dentists from whom treatment may be sought.

Copies of the leaflet, prepared by the American Heart Association, may be obtained from the North Carolina Heart Association, Miller Hall, Chapel Hill, North Carolina. Emergency Anticoagulant Identification Cards for patients to carry are also available to physicians from the Heart Association.

SOUTHERN MEDICAL ASSOCIATION

The Southern Medical Association will hold its annual meeting at the Fontainebleau Hotel, Miami Beach, on November 12-15, 1962.

Exhibits of high caliber are solicited for the Scientific Section. Applications may be obtained from the chairman of the Scientific Exhibit Committee, George F. Schmitt, M.D., 30 S.E. Eighth Street, Miami, Florida.

A.M.A.—AMERICAN COLLEGE OF CHEST PHYSICIANS

The American Medical Association and the American College of Chest Physicians, will hold a combined scientific session at McCormick Place in Chicago on Monday, June 25. This will be the closing day of the Chest Physicians' five-day meeting and the opening day of the American Medical Association's annual meeting. Arthur M. Master, M.D., New York, Chairman of the A.M.A.'s Section on Diseases of the Chest, will deliver the opening address at the joint meeting. His topic will be "Fads and Public Opinion in Heart Disease."

The program will include symposiums on "Results of Surgical Treatment of Acquired Cardiovascular Disease" and "Special Contributions in Chest Diseases."

There will also be six round table luncheon discussions on various type of emergencies encountered in dealing with diseases of the chest. One of the moderators will be Dr. Frederick H. Taylor of Charlotte, North Carolina.

The A.M.A.'s Section on Anesthesiology, Pathology, and Physiology will join with the Chest Physicians for the afternoon section of the meeting to conduct a symposium on "Inhalation Therapy."

The always popular Fireside Conferences, long a feature of the Chest Physicians meetings, will be held at the Morrison Hotel on Monday night, June 25.

Physicians attending these sessions are encouraged to ask questions and comment on the subjects. They are free to move from one table to another if and when they choose. Refreshments will be served.

SYMPOSIUM FOR GENERAL PRACTITIONERS ON TUBERCULOSIS AND OTHER DISEASES

The eleventh annual Symposium for General Practitioners on Tuberculosis and Other Pulmonary Diseases will be held July 9 at Saranac Lake, New York.

According to General Chairman John N. Hayes, M.D., the symposium is designed to impart to the general practitioner some of the special knowledge of physicians, surgeons, and others who have devoted most of their professional lives to the study of pulmonary diseases.

"We believe it is important," said Dr. Hayes, "to adjust from time to time the perspective of physicians to the ever-changing picture of the clinical and public health aspects of tuberculosis."

The symposium is acceptable for 27 hours of Category I credit by the American Academy of General Practice. The registration fee is \$75.00. A deposit of \$10.00 should accompany the application.

Address applications or inquiries to the chairman, P. O. Box 627, Saranac Lake, New York.

MEDICAL PROGRESS ASSEMBLY

Plans have been announced by Dr. Stanley Graham, president of the Birmingham Academy of Medicine, for the Fifth Annual Medical Progress Assembly to be presented September 30, October 1-2, at the Tutwiler Hotel in Birmingham.

In charge of the program is Dr. Arthur Freeman. Dr. Gordon L. Ross is serving as exhibits chairman, and Dr. James J. Hicks, coordinator. Other committee heads will be announced.

"The enthusiastic response throughout the South to past Medical Progress Assemblies has encouraged us to expand the annual program," Dr. Hicks said, "and we will issue invitations over a larger area this year."

OCCUPATIONAL HEALTH CONGRESS

Physicians and industrial health experts from all sections of the nation will gather in Boston October 2-3 for the Twenty-Second Congress on Occupational Health.

The two-day meeting at the Somerset Hotel is sponsored by the American Medical Association's Council on Occupational Health.

The national congress serves as a meeting for the formal presentation of scientific papers on occupational health as well as a forum in which occupational health problems can receive the attention of acknowledged experts in this field.

Additional information about the conference may be obtained by writing to the Council on Occupational Health, American Medical Association, 535 North Dearborn, Chicago 10, Illinois.

AMERICAN CANCER SOCIETY

The 1962 Scientific Session of the American Cancer Association will be held at the Biltmore Hotel in New York City on October 22, 23.

This year's symposium, on "The Clinical Impact of a Quarter-Century of Cancer Research," is being held in recognition of Cancer Progress Year, 1962 being the twenty-fifth anniversary of the National Cancer Institute. The papers will attempt to emphasize the research developments which have clinical application today.

For further information write to the Director of Professional Education, American Cancer Society, 521 West 57th Street, New York 19, New York.

AMERICAN COLLEGE OF PHYSICIANS

Dr. Wesley W. Spink, professor of medicine at the University of Minnesota Medical School, was elected president-elect of the American College of Physicians at the business meeting of the college held in Philadelphia April 12. At the same time Dr. Franklin M. Hanger, Staunton, Virginia,

assumed the presidency of the organization for 1962-1963.

Other officers elected were Dr. Marshall N. Fulton, Rhode Island, first vice president; Dr. Paul H. Revercomb, West Virginia, second vice president; and Dr. Willis M. Fowler, Iowa, third vice president.

Among those who were re-elected to the Board of Governors was Dr. Robert L. McMillan of Winston-Salem.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

A program to help intensify the teaching effectiveness of medical educators, thereby increasing the ability of medical students to learn, has come into being by a grant to the Association of American Medical Colleges, by the Carnegie Corporation of New York.

According to Dr. Ward Darley, executive director of AAMC, the association has organized an "educational division" to implement the program which will emphasize research in medical teaching and learning.

The division will have as one of its goals that of delving into patterns of teaching and learning as applied to medical education. The information and data thus gained will be distributed to all medical colleges through forums and seminars and the association's publication, **Journal of Medical Education**, he pointed out.

AMERICAN ACADEMY OF GENERAL PRACTICE

Dr. Albert E. Ritt, St. Paul, Minnesota, was named president-elect of the American Academy of General Practice April 9 at the organization's annual scientific assembly in Las Vegas, Nevada.

Along with Dr. Ritt, Dr. Herbert W. Salter, Cleveland, Ohio, was elected vice-president and three new directors were elected to three-year terms. They are Drs. R. Varian Sloan, Honolulu, Hawaii; Richard R. Chamberlain, Maplewood, New Jersey, and Francis L. Land, Fort Wayne, Indiana. Re-elected as speaker of the Academy's policy-making Congress of Delegates, was Dr. Carroll L. Witten, Louisville, Kentucky. The vice speaker, Dr. Lewis W. Cellio, Columbus, Ohio, also was re-elected.

ROCKY MOUNTAIN CANCER CONFERENCE

The Sixteenth Annual Rocky Mountain Cancer Conference will be held at Denver's air-conditioned Brown Palace West Hotel, July 13-14, and will feature panel discussions on "Neoplasms Complicating Pregnancy" and the "Carcinoma of the Colon."

The president of the American Cancer Society and the president-elect of the American Medical Association will participate in the two-day program.

Application has been made for A.A.G.P. accreditation for the Conference.

Further information may be obtained by writing Rocky Mountain Cancer Conference, 1809 East 18th Avenue, Denver 18, Colorado.

NATIONAL SOCIETY FOR CRIPPLED CHILDREN AND ADULTS

Representatives of 12 Caribbean countries will join with leading United States rehabilitation authorities in considering treatment and education of children at the annual convention of the National Society for Crippled Children and Adults, November 16-20 at the Hotel Fontainebleau, Miami Beach, Florida.

T. A. Mangelsdorf, senior vice-president of Texaco, Inc., New York, a vice-president of the National Society, who is serving as chairman of the 1962 convention, announced that the following countries will participate in a special Caribbean Rehabilitation Day: Antigua, Columbia, Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Haiti, Jamaica, Mexico, Trinidad, and Venezuela. All are affiliated with the International Society for Rehabilitation of the Disabled.

Other convention features will include seminars, workshops, demonstrations, and discussion on all phases dealing in the rehabilitation of the crippled. Three agencies that have already indicated their interest in helping to bring forward steps for the advancement of the handicapped at the convention are the Florida Chapter of the Council for Exceptional Children, American Physical Therapy Association, and the Florida Rehabilitation Association.

AMERICAN HOSPITAL ASSOCIATION

Valley Forge General Hospital, Phoenixville, Pennsylvania, has been named grand award winner of the 1961 Hospital Safety Contest, sponsored by the American Hospital Association and the National Safety Council.

The contest, completed by 330 hospitals, was designed to encourage the observance of safety practices among hospital employees. Hospitals taking part were divided into eight groups according to the number of employees. First place winners in each group worked the largest number of injury-free hours. Among them was the Veterans Administration Hospital, Salisbury, North Carolina—800-999 employees.

VETERANS ADMINISTRATION

Evaluation and treatment of suicidal risk among schizophrenic patients in psychiatric hospitals is the subject of a new Veterans Administration medical bulletin.

The new bulletin (VA Department of Medicine and Surgery Medical Bulletin 8, February 1, 1962) presents the results of a detailed study of suicidal behavior in schizophrenic psychiatric hospital patients and offers clues for identification and suggestions for prevention of such behavior.

A limited number of the bulletins is available for medical libraries and medical personnel outside the VA, on request. Requests should be addressed to Editor, Medical Bulletin, Department of Medicine and Surgery, Veterans Administration Central Office, Washington 25, D. C.

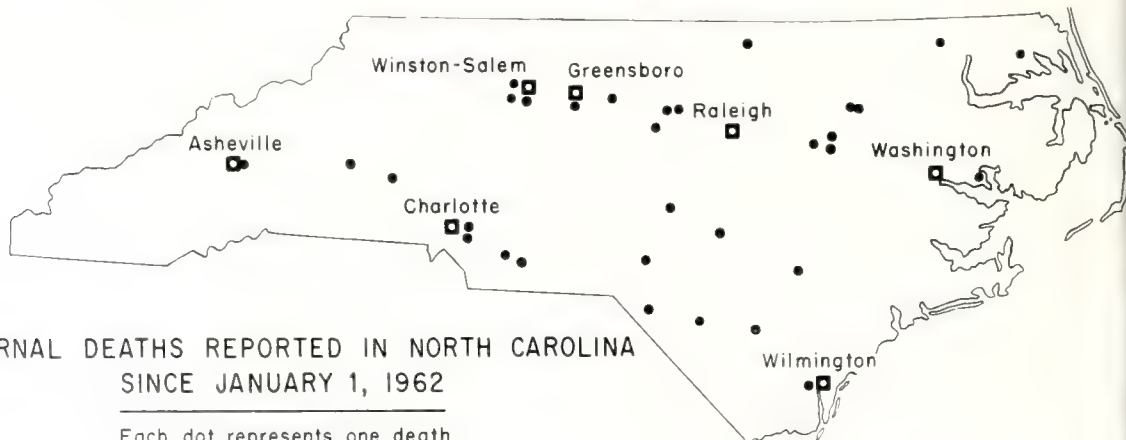
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NORTH CAROLINA

Medical Journal



July, 1962
Vol. 23 No. 7

IN THIS ISSUE:

"Our Fight For Freedom"

Dr. Norman A. Welch

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a look at the
literature



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—Gray, H. R., Wolf, R. L., and Doneff, R. H.: Evaluation of Flurandrenolone, a New Topical Corticosteroid, *Arch. Dermat.*, 54:18, 1961

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Our Fight for Freedom

NORMAN A. WELCH, M.D.*
BOSTON, MASSACHUSETTS

The inexorable passage of time, which seems to gain more speed as we grow older, makes it seem like only yesterday that as children we first learned the fundamental facts of the birth of our nation. Indeed, it is not actually so long ago that Washington crossed the Delaware and the flame of freedom was successfully lighted, to start this country on the road to spectacular progress and success. This progress has been so rapid in time that we may even be accused of accepting it too lightly, without recognizing adequately the sacrifice and labor of those who preceded us.

The medical profession has profited to a great extent from the freedom won for us in those early days, and has used that freedom to improve vastly the health of our people. It has not been by mere chance that life expectancy has been prolonged more than 20 years since the turn of the century. The virtual eradication of some diseases, and the potential elimination of others, is a testimonial to the advantages of the individual freedom we have come to know as an integral part of our American life.

One of the most significant phenomena in the history of the world is the remarkable and lasting language of the Constitution of the United States and the Declaration of Independence of the Colonies. I doubt if these documents could be written any more effectively today or could express any more adequately the philosophy of free men.

As one result of the speed of progress, particularly in communications and travel,

our relationships with other governments and their peoples have undergone a radical change. As part of this change we have become engaged in an economic and cultural battle for the control of the world, spurred on by a contest for the survival of man as a free individual, as opposed to his enslavement by an atheistic concept that he must be dominated and controlled by a select few.

While our primary concern as physicians is the protection of the health of our people and the provision of good medical care for the public, we must not lose sight of our obligations as citizens of our great country. We must not limit our current and future education to that information contained in medical books and periodicals while neglecting our larger responsibility to protect the institutions and fundamental principles of our country against the gradual erosion many of us fear is taking place.

The Threat to Freedom

It has been said that we cannot protect the economic security of this country if pressure groups demand and receive favorite consideration from the lawmakers. A bridge here, a dam there, and a federal building here and there, without adequate judgment of the overall picture of necessity and expense are decried as increasing the cost of government to too many people without adequate justification. This also applies to some foreign aid projects. After spending hundreds of millions of dollars for this purpose, we appear to be worse off than we were before. Three hundred million dollars sunk in Laos is but one example of lack of accomplishment. Similarly, the demand for

*Presented at the President's Dinner, Medical Society of the State of North Carolina, Raleigh, May 8, 1962.

*Speaker of the House of Delegates, American Medical Association.

millions of dollars for medical research must be looked on with a critical eye aimed at getting the most for that money. As citizens we should be familiar with all these programs because the constant erosion of our economic security can lead only to the destruction of the wealth and security of the individual American, with greater and greater risk to his personal freedom and independence.

The results of heavy taxation are already being felt in the increased pressure for a governmental medical care program. Having created a rapidly increasing and burdensome tax structure which now leaves some of our older citizens dependent on others for the financing of prolonged illness, the medical profession is being asked to support a further tax program to bail the government out of this real or imagined dilemma.

It is certainly not too soon for us as American citizens to pause and take a good look at what we have done to preserve those principles of government bequeathed to us by our founding fathers. Have we steadfastly adhered to a philosophy of maintenance of those principles of freedom so ably espoused many years ago? Or have we, by omission or neglect of our responsibilities, allowed changes inimical to those principles to develop and progress?

How much responsibility do we have for the tremendous concentration of power in the federal government? Why has it been so easy, over a comparatively short period of time, to tax the American people into a marked degree of subservience to centralized authority? Why does one have to appeal to Washington for money for roads, housing, hospital construction, medical schools and college construction—and, yes, now even for money to send one's children to college? Is this the preservation of individual freedom, or is it evidence of a fast growing loss of freedom, leading to diminished initiative and the ultimate destruction of our way of life? With two thousand years of history behind us, why should we now be courting the failures of bygone generations?

Will we be fortunate enough to see the

day when 26 governors of 26 sovereign states will have the courage to say, "We don't want your federal money. You keep it this year and let's start back on the road to local government by the people, of the people, and most of all, for the people."

Unless there is a radical change in this trend there is no hope for the preservation of our way of life. The longer the present course is allowed to proceed, the more will people become dependent on government support, and their fear of having no other place to go will tend to perpetuate this system. This is particularly true of those retired persons whose fixed incomes yearly diminish in purchasing power because of heavy taxation, either direct or indirect, and by the inflationary loss in the dollar value.

If we do not take an active role as citizens, as well as doctors, important factors will operate to increase the problem for hospitals and the profession, and the push for governmental medical programs will increase because of the general economic climate and its effect on the purchasing power of the individual.

Why We Oppose the Administration's Approach to Medical Care

In June, 1958, the then Senator Kennedy told a Freeman's Hospital—Howard University group in Washington, D. C. that "most public opinion surveys show doctors to have less interest in political and public affairs than almost any other comparable group. They not only fail to participate actively in our political leadership but they are too often wholly nonpolitical in their interests and ideals."

I wonder if at the end of 1962 Mr. Kennedy's thoughts will be the same. In the words of one great American patriot, we have just begun to fight, and that fight is not on behalf of the medical profession but is for the American people. What is more important, we expect to win this fight. In fact, I feel that time is rapidly running out on the other side as people come to a full realization of the efforts being expended to make them wards of the government in matters of medical care.

What else did Senator Kennedy say? He said: "Unfortunately, voluntary health insurance has not and cannot do the job. Although insurance companies have made a mighty effort . . . it is unlikely they can reach our older citizens." He continued: "No program for health insurance for the aged can be effective unless:

1. All persons at all age levels are enrolled so that the premium can be paid during the long period of youthful good health.
2. The benefits are sufficient to pay the entire cost of hospitalization and nursing services.
3. There is some provision for diagnostic services to encourage preventive medicine."

This is an interesting situation, but not unusual for government. These are the criteria for a private plan, but the law which is advocated doesn't meet these criteria. Why is there a \$10.00 payment for the first nine days, and why is coverage limited to 90 days in a hospital if a private plan should pay the entire cost?

In Massachusetts, under our basic program of Blue Cross and Blue Shield, we can do a better job than the proposed plan; and if prolonged illness is added to the basic coverage, there is no comparison between the two programs. But what is most important, under our private program we will maintain the freedom of the individual without government regulation or control of one of the most intimate and personal aspects of human relations.

The criticism of the Kerr-Mills bill is somewhat ridiculous on even superficial observation. The principal objection mentioned is that it involves a means test. As I have said repeatedly you don't give a blank check to anyone if you are in your right mind. When your own money is involved you have a means test to mortgage your home, to buy an automobile, or to borrow money for any purpose. But when the politician is determined to spend the other fellow's money, a means test becomes abhorrent. There is a very simple remedy to their objections and that is to amend the Kerr-Mills Law by saying, "All states shall implement

this program and no means test shall be applied to any applicant." Will anyone do this? Of course not. It just wouldn't make sense to allow everyone, regardless of need, to dip into state and federal funds. Where then is the logic in this objection?

Tax inequities

If this is not a valid solution—and I am sure it is not—where then is the logic in taxing people to give hospital and medical care to those who do not need the help? There is much objection in certain areas to a sales tax because it places the greatest financial burden on those with small and medium incomes. The greatest burden of taxation under the King-Anderson Bill comes again on those with small incomes. No tax is paid on monthly incomes over \$200 dollars, so, in relation to income, people in that tax bracket will pay the biggest percentage of the tax but their benefits will be no greater than those afforded to persons in a higher income bracket.

Let's examine some other inequities in the proposed program. Let us remember that people over 65 years of age are all potential voters, but they don't pay any of the bill. The people under 21 years of age will carry the greatest burden of this taxation and its future extensions, but unfortunately they have no vote. I am sure the majority of those over 65 years of age are just as good citizens as you and I, and I question that they will knowingly place this burden on their children and their neighbor's children. The fact that those people under 21 years have no vote and yet will pay the burden of this tax load is no great worry to the present politician, because he probably won't be in office when many of these youngsters reach voting age. It may however, reflect on the political party when someone says: "Who did this to us? Why are my taxes so high that I can't even provide for the education of my children?"

A step toward socialism

As a profession we have justifiable concern about such radical proposals. It is interesting to note that some of the key people in this drive have long openly advocat-

ed socialized medicine. I have no reason to feel this is not still their goal. Indeed, some have said that this program is something to build on. To build what? Naturally, to extend this arrangement to other groups. Can't you hear the individual of 60 years or 55 years of age saying, "I have just as much trouble paying hospital bills as my neighbor who is 65, and I want the same help. And while you are about it, why don't you take care of my doctor's bill too?" Will the politician turn a deaf ear, or is this something for him to campaign on next time?

No, gentlemen, we will not be deceived by what is claimed to be only a small program. No one will say, "I guarantee that this program will not be extended, because they know no such guarantee can be offered. I am sure there is no intention to limit this activity once it has been initiated. As further proposals are advanced it will be said that this will add only another $\frac{1}{4}$ of 1 per cent, so it is infinitesimal. Being used to dealing in financial superlatives, the addition of a mere three million dollars a day wouldn't even cause a wince or a shiver except to the poor taxpayer.

The American Medical Association has been a prime target for abuse. Statements that we have opposed social security, Blue Cross, and Blue Shield have been made many times, but are completely without foundation. The people have been told that we are always crying "socialized medicine," and that the King-Anderson Bill is not socialized medicine.

This is mainly because the American people will never buy socialized medicine.

When the government collects a compulsory tax, tells you what you are going to get in benefits, and regulates the distribution of those benefits, you tell me what it is if it isn't federally controlled medical care—or what we shall continue to characterize as socialized medicine.

What sort of morality does one espouse when he tells children it won't be necessary to take care of their parents, that government will do it for them? And what sort of morality is involved in telling parents they won't need to take care of their children's education, that the government will do it for them? In the name of heaven, how far have we strayed from the fundamental concepts of American life and sane Judaeo-Christian philosophy?

Conclusion

I am confident that there are enough outstanding men in Congress—men who are just as much statesmen as those we have had the good fortune to have in the past, men who recognize that the proposed program is a sham and a cruel hoax on the American people—to soundly defeat this proposal and thus take a most important step backward toward sane democratic government.

We have much work to do in the next few weeks, and we need your missionary help to firmly defeat this socialist proposal. The glory of the past is your heritage but the future is your responsibility and mine.

The medically needy are today a minority amid a majority of sufficiency and affluence. Accordingly, they can be identified and helped on the local level with success and thoroughness never before possible. Nevertheless, our apostles of affluence propose coast-to-coast spending schemes that offer too little to those who need it and a dividend to those who don't. This is very much like the legend of the eccentric who leaves a million dollars to be distributed in \$1 bills to one million people. A fortune is spent, but nobody is richer. When the fortune spent is public money, everybody is that much poorer.—Austin Smith, M.D., to Pharmaceutical Manufacturers Association's annual eastern regional meeting.

North Carolina's Traffic Safety Program

THE HONORABLE TERRY SANFORD
Governor of North Carolina

I want to talk with you today about a problem which is of great concern to government and to the medical profession. North Carolina has a grave illness. It is best described as an incredible epidemic. That is the only word for a phenomenon which, in this state alone, takes a life every seven hours and adds another human being to the sick list every 15 minutes.

Such is the horror of North Carolina's traffic accident death and injury experience. I don't need to describe the illness to you, for you have seen its symptoms in emergency rooms, on the operating table, in pediatric wards and orthopedic clinics. You have carried the tidings of grief to stricken families and loved ones. Yes, you have seen what one traffic accident can do.

But I want you for a moment to multiply your individual experience. Last year in this state, traffic accidents claimed the lives of 1254 persons. Traffic accidents injured 34,000 persons. In government we have to work with numbers in the aggregate. These 1200 deaths and 24,000 injuries resulted from more than 60,000 accidents. And the economic loss amounted to more than \$200 million which is only 10 per cent less than what North Carolina spends on its entire public school system.

It is a credit to the medical profession that more of our citizens didn't die from traffic accidents. Many were kept alive by medical techniques developed long after the development of a 300 horsepower automobile engine. But you and I know that the curing of this epidemic does not lie with treatment of accident victims. It lies in preventive medicine.

Preventive medicine for deaths and injuries in traffic accidents, as you all know, is a complicated problem. You are familiar with research into the causes of injury when an accident occurs. This is an area of discussion which is between you and the auto-

mobile makers. But just as we cannot afford to wait for medicine to show us how to keep every accident victim alive (if this were possible) neither can we wait for science to give us an injury-proof automobile or an accident-proof highway.

What We Are Doing to Prevent Traffic Accidents

It is my purpose today to tell you what North Carolina is doing to prevent traffic accidents and to make clear that in this effort there is a very important role for the physician—outside the hospital or emergency room.

Traffic accident prevention is as old as the motor car. In the beginning came traffic laws, enforcement, and eventually the attempts to educate the people to be better, more responsible drivers.

The public education effort probably receives the most attention from the general public. For out of it grew the posters, the billboards, the safety contests, the slogans, the safe driving days and all the other gimmicks and drives which are aimed at the individual driver.

This total effort no doubt has contributed to retarding the accident rate. The trouble is, we keep on killing more than 1200 and injuring over 34,000 persons every year. The answer, I think you will agree, does not lie in more and better slogans. In fact, our lack of success has yielded in the public mind the undying conviction that when you really come down to it, we cannot solve the traffic accident problem. As the saying goes: "Accidents will happen." Most of our citizens believe that traffic accidents cannot be prevented, or even that their number can be greatly reduced.

At the same time, in spite of the publicity which plays upon traffic accidents, surveys show that most of us do not feel that an accident could happen to us. Nine out of ten drivers consider themselves to be above average in skill and judgment. Therefore,

these 60,000 accidents every year, we say, are caused by other people, could not possibly involve us; and thus, every traffic safety message is meant for "the other guy." It looks like a hopeless and vicious circle. Have we then reached the point of diminishing returns in all of our efforts to prevent traffic accidents? I think that we have reached that point as long as we use only the tools which have proven their lack of effectiveness.

What else is there? What can we add in the year 1962 after a fifty-year struggle with traffic accidents?

"A Balanced Program"

Let me quote from the report of the President's Committee for Traffic Safety, which is the group of top people in the traffic accident prevention field who attempt to coordinate effort and research in this area. The report says: "Traffic accidents can be greatly reduced. But there are no short cuts, no quick or simple cures. Slogans, gimmicks and 'drives' yield no lasting benefit."

"The remedy," says the report, "lies in a balanced program fully used by public officials and fully supported by the public on a continuing basis. State after state and community after community have proved that the balanced program works."

This is exactly what is going on in North Carolina at this moment. This state, for the first time, is setting in motion a sound, balanced program, based on the proved needs in the various field of endeavor. One by one our problem areas are being diagnosed, and the "treatment" (if you will) is being prescribed.

We are the first to recognize that the responsibility for providing a traffic safety program for a state lies right where it should lie—squarely with the officials of the state.

We have appointed what is known as the Governor's Coordinating Committee on Traffic Safety. This Committee is composed of not just one or two, but all state officials who have traffic safety responsibilities. They include the Commissioner of Motor Vehicles, the Chairman of the Highway Commission, the Superintendent of Public Instruction, the Attorney General, the State

Health Officer, the Commissioner of Insurance, and legislative leaders.

The first job of the committee is critical self-appraisal. At this moment each member is asking himself and his department: Where are the weak spots? Where can we do a better job? What are the needs in my particular area of the problem?

At the same time, the committee looks at the problem, asking what factors are causing the largest percentage of the accidents and what can be done in the areas of greatest need. From the answers to these questions will come what is to be called the Official Action Program. Obviously, it is a continuing process. We do not promise to eliminate traffic accidents in North Carolina in one year or four. But we know that the system works and we know that it offers the best and perhaps the only hope.

The Physician's Role in Winning Citizen Support

I mentioned earlier that there is a role in this balanced approach for the physician. That role evolves from the leadership which doctors exercise in their communities. For here is another arm of this accident prevention program. It is citizen support.

We recognize that it is government's job to plan an action program and to decide what measures are necessary to solve the problem. Some of these measures can be put into effect by administrative action. But others will require legislative action; some will require a vote of the people.

Whatever is required, you can be sure that these measures are not simply dreamed up to make headlines; nor are they the product of any single mind. They will be carefully thought-out proposals, productions of the most serious study and research. There will be no cause for individual prejudice or for partisan differences. The official action program will require the support of all our citizens.

And here is where the physician can be of great service in the prevention of traffic accidents. Heretofore we have begged drivers to save themselves, and the message has been widely ignored. Now we will be asking citizens to help their officials solve the problem once and for all.

As you might be able to tell from all of this, this Administration is committed to exert its every effort along balanced lines which have been proven effective.

You as doctors, as members of the Medical Society of North Carolina, and as leaders in your communities will be asked to support the Official Traffic Safety Action Program. What you decide will have direct bearing on whether North Carolina indeed can put to work an official program to prevent accidents.

Preventive medicine is perhaps the most thankless and difficult service rendered by the physician. It is surprising how difficult it is to get people to accept the medicine which will save their lives. But you and I know that preventive medicine is often the best medicine.

The eradication of this epidemic depends upon the prevention of traffic accidents. We know that continuing and coordinated action by public officials, supported by the public, will greatly reduce traffic accidents.

Legislative measures

An example of where a concerned public can aid in combatting traffic accidents is the court improvement amendments on which our state will vote this fall. These amendments will open up what is now a dead end road and will authorize the Gen-

eral Assembly to establish traffic courts under a unified judicial system.

The law-abiding people of North Carolina are becoming increasingly aware that drinking and drunken drivers endanger not only their own lives but also the lives of all who ride in cars. We know that at least one-third of all fatal accidents in North Carolina result from an explosive mixture of alcohol and gasoline.

Statistics show us another major area of concern—the teen-age driver. Six per cent of all the accidents involve teen-agers. But only 2 per cent of the drivers are teen-agers. We are attempting to improve these statistics through the driver education program, and we are considering the possibility of probationary licenses.

Other areas where citizens' support is needed include the check of safety equipment—such as brakes, lights, tires, steering and horn—speed control devices and safety belts.

Some of these projects obviously will require legislation and some can be done without legislation. All will require the support of that vast majority of the citizens who have a right to ride the highways without fear of being killed by some fool.

You doctors face this epidemic every waking hour, and I ask your help in this program of preventive medicine, in this crash program to stop the crashes.

INCENTIVES FOR PRIVATE ENTERPRISE RESEARCH

I have seen drugs marketed in which I have had little faith. In many of these instances, my assessment has been confirmed by the subsequent demise of such drugs. In other instances, however, proponents of the drugs have proven to be right. In a few instances, such products have been outstandingly successful. I would not even rely on my own judgment to determine what should or should not be marketed. Rather I would say that where private enterprise is prepared to invest its funds in the risky research, development, and marketing of such drugs, it should be free to proceed and should have all the incentives, including patents, that can be provided.—Lowell T. Coggeshall, M.D., Vice President, University of Chicago, to Senate Subcommittee on Antitrust and Monopoly.

Hemochromatosis: Review of Therapy and Report of a New Case

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Sufficient evidence is accumulating to indicate that idiopathic hemochromatosis is the result of a genetic deviation¹⁻⁵. Approximately 20 per cent of the relatives of patients with hemochromatosis have elevated serum iron levels^{3,6}. With liver biopsies, a smaller percentage who manifest the various stages of this disease can be identified¹.

In the light of this genetic origin, a satisfactory form of therapy becomes even more important. During the past 12 years, multiple phlebotomies have evolved as the cornerstone of our medical regimen. Through the judicious exercise of bleeding, the physician may be able to benefit not only the obviously advanced case of bronzed diabetes, but also the preclinical victim.

The most common findings in idiopathic hemochromatosis are pigmentation of the skin, cirrhosis of the liver, diabetes, endocrine dysfunction, and heart failure. Clinical diagnosis depends upon the demonstration of excessive iron stores and associated tissue (hepatic, pancreatic, cardiac) damage³. MacDonald and Mallory⁷ have stated that the diagnosis can be made with certainty only at the autopsy table. Their criteria consist of: (1) cirrhosis of the liver of a "portal" type, with (2) excessive iron deposits in hepatic parenchymal cells in connective tissue and in bile duct epithelium, (3) pancreatic fibrosis and hemosiderosis, and (4) parenchymal iron deposits in other organs of the body.

The purpose of this paper is twofold: (1) to review the record of another patient treated with venesections; (2) to outline the documented cases, in the English literature, of hemochromatosis treated by multiple phlebotomies.

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Clinical Material

Each of the 59 cases^{1,6,7,8-37} of idiopathic hemochromatosis (including the author's) was carefully studied and observed. The clinical diagnosis was substantiated by liver and/or skin biopsies. The ages ranged from 27 to 69 years, and there were four female patients. The amount of blood let varied from 2.5 to 96.4 liters. The average period of observation was three to five years, one patient having been followed for 10 years. Table 1 is a composite of the overall results of treatment, while table 2 is an attempt to correlate the response of the individual organs. In table 2 results could be tabulated only where specific organ response was noted in the case reports.

Thirteen other examples^{1,16,17,34,38-40} were reviewed. Sufficient information was not available at this time to include them in this review.

Case Summary

A 59 year old white man was admitted to the Veterans Administration Hospital, Philadelphia, Pennsylvania, for the first time on September 21, 1956, complaining of hoarseness, polyphagia, polyuria, and polydipsia. Seven years prior to this admission a diagnosis of cirrhosis of the liver was assumed by his family physician because of hepatomegaly and long-term use of alcohol. At that time he ceased to consume his usual pint of whiskey a day. No iron medication or whole blood transfusions had been prescribed. He denied a family history of liver disease and diabetes mellitus.

The positive findings on physical examination were increased pigmentation of the skin, absence of axillary hair, a hard smooth liver edge palpable three finger-breadths below the right costal margin, and atrophic testes.

The following laboratory tests were performed with normal results: blood count,

bromsulfalein retention after 45 minutes*, serum bilirubin, serum cholesterol, prothrombin time, and blood urea nitrogen. A urinalysis was also normal except for a 3 plus sugar reduction.

The alkaline phosphatase was 7.5 Bodansky units, and the cephalin flocculation was 4 plus in 48 hours. A serum iron was 129 micrograms per 100 ml., with an unsaturated iron binding capacity of 83 micrograms per 100 ml., and 60 per cent saturation. The fasting blood sugar was 315 mg. per 100 ml.

A roentgenogram of the chest and an electrocardiogram were interpreted as normal. No varices could be identified on an esophagram, but an aberrant right subclavian artery was noted. Indirect laryngoscopy revealed paralysis of the right vocal cord. A liver biopsy specimen was described as being typical of hemochromatosis, with mild portal cirrhosis and excessive iron pigment throughout the connective tissue and parenchymal cells.

Phlebotomies were commenced in November, 1956, at an average of 500 to 600 ml. of whole blood per week. By September, 1958, approximately 50 liters had been withdrawn. Initially, the response was dramatic. Besides improved vigor and lessening cutaneous pigmentation, the insulin requirements of 30 units NPH daily ceased. The patient's blood sugar remained within normal range on this regimen until September, 1957. The fasting blood sugar then was 330 mg. per 100 ml., and there was 9 per cent retention of bromsulfalein after 45 minutes.* A repeat liver biopsy showed no change. Diabetic diet and 50 units of NPH insulin daily were resumed.

Re-evaluation on June, 1958, showed further deterioration in the liver function test (alkaline phosphatase 15.2 Bodansky units, and 13.5 per cent retention of bromsulfalein after 45 minutes*). The hemoglobin was 11.5 Gm. per 100 ml. and the hematocrit 40 per cent. There were 15 micrograms of serum iron per 100 ml., while the unsaturated iron binding capacity was 377 micrograms per 100 ml. and the saturation 12 per cent. Less iron pigment could be identified on a repeat liver biopsy specimen.

*Five milligrams of bromsulfalein per kilogram of body weight was used.

By August, 1958, anorexia plus epigastric pain and a weight loss of 20 pounds precipitated re-admission to the hospital. Examination disclosed the liver edge to be tender and extending four finger-breadths below the xyphoid. Liver function studies showed the total serum proteins to be 8.1 Gm. per 100 ml., with 5.2 Gm. of globulin per 100 ml., and the alkaline phosphatase, 37.7 Bodansky units. For the first time the electrocardiogram evinced a right bundle branch block pattern.

Exploratory laparotomy exposed a large liver, with the clinical appearance of a neoplasm. A liver biopsy was reported to be compatible with advanced cirrhosis. There was marked diminution of the iron pigment. Therapeutic venesections were abandoned.

Final admission, for epigastric pain and a rapidly enlarging liver, occurred September, 1958. A definite diagnosis of a hepatoma was made from the biopsy of a lytic lesion of the right tenth rib. The patient's condition progressively deteriorated in spite of x-ray therapy. He expired December 24, 1958.

An autopsy disclosed hepatocellular carcinoma (grade III) with metastases to the right third and tenth ribs and right adrenal glands. Changes of hemochromatosis were seen in the liver as well as in the pancreas, thyroid, adrenals, and pituitary. There was focal and diffuse myocardial fibrosis (mainly subendocardial) due to arteriosclerotic changes of the coronary vessels as well as Laennec's cirrhosis of the liver.

Comment: There was definite initial improvement. No plasma was re-infused. The subsequent deterioration and death can be related to the development of a hepatoma. Attention should be called to the presence of dysphagia lusoria. Also, only 3 per cent of primary liver carcinomas develop bony metastases⁴².

Discussion

If the excessive loading of parenchymal cells with iron deposits (ferritin and hemosiderin) is the stimulus for cellular derangement and resulting tissue fibrosis, then hemochromatosis can be controlled by judicious blood-letting. Phlebotomies are successful

Table 1
Results of Therapy

Classification	Cases	Per-centage
Total number of patients	59	
Significantly improved	48	80
Improved initially but then died	2	
Clinically unchanged	6	10
Progressive deterioration	1	
Deaths	6	10
Primary carcinoma of liver	3	5
Congestive heart failure	1	
Gastrointestinal hemorrhage	1	
Obstructive jaundice with hepatic coma	1	

since the iron deposits are freely available to the bone marrow for the synthesis of hemoglobin. This fact was documented microscopically in more than 20 of the cases in table 1 through the application of serial liver biopsies during the course of therapy.

What, if any, significant results can one expect from the monotonous, time-consuming task of venesections? Tables 1 and 2 are

cases. It is seen in those with apparent excessive fibrosis to the point of no return. Secondary complications such as tuberculosis²⁶, macrocytic anemia^{13,14}, and hepatoma^{13,14} also interfere with the results.

A pint of whole blood contains 250 mg. of iron; therefore, prolonged bleeding is necessary to remove the estimated overload of 25 to 50 Gm. of iron. Satisfactory lessening of this store is predicated by a drop in the total serum iron and then by a reduction in the hemoglobin to below 10 Gm²⁹. Subsequently, three to four phlebotomies yearly are necessary to prevent re-accumulation of an excessive amount of parenchymal iron. Bleeding, which was first suggested by Balfour and coworkers⁴¹ in 1942, has varied from 500 ml. to 2500 ml. a week without ill effect. The re-infusion of plasma is not necessary if the diet is adequate.

Summary

Since in hemochromatosis insulin therapy can control diabetes, phlebotomies are uti-

Table 2
Specific Organ Improvement

Classification	Cases	Improved	Percentage
Skin pigmentation	24	24	100
Hepatomegaly	24	19	79
Abnormal liver function studies	22	17	79
Diabetes mellitus	22	14	61
Splenomegaly	5	5	100
Congestive heart failure	5	4	80
Libido	4	3	75
Myxedema	1	1	100

a composite of the effects of this regimen on the cases reported.

They show that the physician can expect improved general well-being and lessening of the skin pigment in almost all uncomplicated cases. More important is the reduction in the size of the liver and improved liver function test results in 79 per cent of the cases, more easily regulated diabetes in 61 per cent, and often the lessening of the severity of congestive heart failure. The latter was seen in 4 of 5 patients reported with cardiac decompensation. Actual reduction in the size of the heart can occur^{19,22,30}. Even hypersplenic anemia may improve²⁰.

Failure of significant response to therapy can be anticipated in 20-25 per cent of the

lized in an effort to avoid hepatic and cardiac failure. This treatment appears to have been successful in a significant majority of the 59 cases reviewed (tables 1 and 2). If so, the greatest benefit may be derived from judicious bleeding of the preclinical case before early liver changes occur.

Ultimate failure of therapy after initial clinical improvement is noted in a new case report. This failure was due to the development of a hepatoma. Osseous metastases as well as dysphagia lusoria were identified.

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Bacterial Endocarditis: Its Behavior in the Elderly

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Since the advent of the antibiotic era bacterial endocarditis has become one of the few cardiac disorders that can be cured non-surgically, and with increasing experience with these drugs in its treatment, the mortality rate has progressively diminished. In 1950 Friedberg¹ reported an overall survival rate of 66 per cent during the first few years of the antibiotic era. In 1961 he and his co-workers² reported an overall survival rate of 83 per cent during the previous 10 years². In the latter report, the survival rate for patients under 50 years of age was 93 per cent as compared with 72 per cent for those over 50 years of age. Other writers have found an even greater difference in survival rates for the two age groups.

Bacterial endocarditis in the elderly is frequently either undiagnosed and, as a result, fatal—or is diagnosed late in its course, with such crippling sequelae as hemiplegia from cerebral embolism, or intractable heart failure from permanently damaged heart valves. Two possible causes of this difficulty in diagnosis are (1) failure to suspect the disease, since it was formerly considered a rarity in the elderly³; or a failure to recognize it, since it behaves differently in the elderly. Several recent reports have shown, however, that bacterial endocarditis in older people is much more common than was previously suspected^{1,2,4-14}. Thus, with an increasing segment of our population in the older age group, knowledge of the behavior of bacterial endocarditis in the elderly becomes increasingly important.

Material

This report is based on hospital and necropsy records of 10 patients over the age of

50 admitted to a predominantly referral hospital from 1948 to 1961. During this period there were also 14 other patients under the age of 50 with necropsy-proven bacterial endocarditis.

Of the 14 patients under 50 years of age, the antemortem diagnosis was made in 12, or 86 per cent; of the 10 patients over 50 years of age, the diagnosis was made *ante mortem* in only 2, or 20 per cent.

Case Reports

The following cases constitute the group of 10 patients over 50 years of age. There were 7 men and 3 women, with ages ranging from 55 to 79 years.

Case 1

A 73 year old man was re-admitted to the hospital because of recrudescence of fever and the development of confusion and incontinence three days after he was discharged on chloramphenicol, with a diagnosis of acute pyelonephritis. Examination revealed a temperature of 104 F., tenderness in the left flank, an apical systolic murmur, dehydration, and confusion. Laboratory studies revealed leukocytosis, proteinuria, pyuria, mild anemia, and a normal blood urea nitrogen. Septicemia was suspected and blood cultures were obtained. On the next day stupor and right hemiparesis developed. On the third day he began to manifest cardiac irregularity and respiratory difficulty, and suddenly died. Bacterial endocarditis was not suspected, and the final clinical diagnosis was acute pyelonephritis.

Blood cultures made two days after death grew hemolytic *Staphylococcus* (coagulase-positive), not identified *ante mortem*. Necropsy revealed acute bacterial endocarditis involving only the posterior cusp of the mitral valve, with a perforation in the middle of the involved cusp. Hemolytic *Staphylococcus* (coagulase-positive) was cultured from the involved cusp and the heart's blood. There were also septic cerebral infarcts in the frontal, parietal, and occipital lobes. In addition, acute pyelonephritis and staphylococcal bronchopneumonia were present.

Case 2

A 66 year old woman was admitted with a history of fever, chills, hematuria, and pain in the

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left upper quadrant of the abdomen for one week. Several teeth had been extracted 10 months previously. On admission she was found to have pyrexia, dental caries and pyorrhea, systolic murmurs at the mitral and aortic areas, hepatomegaly, tenderness in the left upper abdominal quadrant, anemia, leukocytosis, pyuria and bacteriuria, an elevated nonprotein nitrogen level, and normal serum albumin and globulin.

Shortly after admission she began to have severe right flank pain, chills, and fever to 105 F. Seven blood cultures were obtained, all of which grew *Salmonella suipestifer*. Despite the administration of antibiotics and transfusions, she continued to have daily chills and fever for the next three weeks. Her fourth and final week in the hospital was characterized by the following: obliteration of arterial pulsations in the right lower extremity; accentuation and roughening of the cardiac murmurs; development of congestive heart failure and hypostatic pneumonia; and finally, a left facial paralysis, Cheyne-Stokes respiration, coma, and death. Bacterial endocarditis was apparently not suspected. Necropsy revealed bacterial endocarditis involving the mitral valve and left atrium, with *S. suipestifer*.

There were also abscesses of the spleen and right kidney. Permission to examine the brain was denied.

Case 3

A 66 year old man was admitted to the hospital with complaints of low back pain, nocturia, dysuria, and intermittent fever for two to three months. On admission he was found to have slight pyrexia, a subicteric tint to his skin, icteric sclerae, systolic murmurs at the apex and the base of the heart, moderate cardiac enlargement, anemia, proteinuria, pyuria, hematuria, an elevated blood urea nitrogen level, and reversal of the albumin-globulin ratio.

The patient was thought to have chronic pyelonephritis with secondary anemia, and treatment with antibiotics and sulfonamides was instituted. The fever did not respond to treatment and his condition deteriorated, with development of acute pulmonary edema, marked anemia, azotemia, and obliteration of arterial pulsations in his left lower extremity. On the eleventh hospital day he manifested anisocoria, unilateral exophthalmos and clonus. He became comatose, the spinal fluid was grossly bloody, and death occurred on the following day. Bacterial endocarditis was not considered prior to death. Necropsy revealed bacterial endocarditis involving the mitral valve; no organisms could be found on smear or cultures of the valve (which also showed healed rheumatic lesions). Also present were chronic pyelonephritis, focal embolic glomerulonephritis, bilateral renal infarcts, and a large intracerebral hemorrhage.

Case 4

A 69 year old man was admitted to the psychiatric ward after three previous hospital admissions elsewhere for confusion, depression, lethargy, weakness, and weight loss for one year. Shortly before admission he had become belligerent, and had attempted suicide. On admission he was found to have pallor, pyrexia, both systolic and diastolic murmurs at the apex and the base of the heart, and anemia. Subacute bacterial endocarditis was suspected, and antibiotics were begun after six blood cultures were obtained, all subsequently sterile.

The patient's condition deteriorated rapidly. Congestive heart failure developed, and he died in a coma a week later.

Necropsy revealed acute and chronic bacterial endocarditis involving the mitral valve, with Gram-negative bacilli and *Candida albicans*. There were infarcts of the cerebellum, cerebrum, and spleen.

Case 5

A 68 year old man was transferred from a psychiatric hospital in coma. He had been in good health until one month before admission, when he suddenly began to experience dizziness, weakness, and loss of recent memory; he became irrational and confused, and was admitted to the above-mentioned hospital, where he gradually lapsed into coma.

On admission here he was found to have pyrexia, "loud gurgling pulmonary rales," slight cardiac enlargement but no murmurs, complete right hemiparesis, coma, and incontinence. Cerebral thrombosis was suspected, and he was given Dicumarol. He then began having daily fever spikes up to 103 F., and hematuria developed. His condition remained apparently unchanged until his death three and a half weeks after admission.

Necropsy revealed bacterial endocarditis involving the aortic and mitral valves, with gram-positive cocci (not cultured). There was a large intracerebral hemorrhage, with generalized encephalomalacia. Renal infarcts, miliary tuberculosis, multiple myeloma, and bronchopneumonia were also evident.

Case 6

A 66 year old woman was admitted with a history of cough, chest pain, and fever to 103 F. for one week, and somnolence and confusion for one day. She was found to have pyrexia, a stiff neck, right homonymous hemianopsia, an equivocal plantar reflex on the right, slight exophthalmos on the left, an apical systolic murmur, mild anemia, and leukocytosis. Bacterial endocarditis with embolism of the left occipital lobe was suspected.

Following blood cultures and a lumbar punc-

ture, a course of antibiotics was started. Six consecutive blood cultures grew hemolytic *Staphylococcus* (coagulase-positive), sensitive to penicillin *in vitro*. Examination of the spinal fluid revealed 5,000 white blood cells per cubic millimeter, with 85 per cent segmented forms, normal sugar and protein values, and no organisms on smear or culture. However, the spinal fluid was normal on four subsequent examinations.

Despite massive doses of penicillin and other antibiotics, the patient continued to have daily fever spikes. She also began to have changing cardiac murmurs, went into congestive heart failure, and then into coma and convulsions. She died after four weeks in the hospital. During her hospital course petechiae, marked anemia, and monocytosis developed.

Necropsy revealed acute bacterial endocarditis involving the mitral valve, with hemolytic *Staphylococcus* (coagulase-positive). There was evidence of emboli to the spleen, kidneys, lungs, adrenals, left occipital lobe of the brain, and aortic bifurcation. In addition, there was a mycotic aneurysm at the aortic bifurcation.

Case 7

A 59 year old man was admitted with self-inflicted burns, the majority third degree, covering 65 per cent of his body surface. He had apparently been in good physical health prior to his attempted suicide. He did well during the acute post-burn period, but subsequently acquired infections of the skin, one eye, and urinary tract, all due to gram-negative bacilli. Despite antibiotics, the patient began to have daily fever spikes to 102 F. His hemoglobin dropped to 8.6 Gm. The urine contained numerous red blood cells as well as white blood cells, bacteria, and a trace of protein. Oliguria, azotemia, and finally acute pulmonary edema then developed, and he died after 34 days in the hospital. Auscultation of the heart was not done because of extensive burns over his chest; bacterial endocarditis was not suspected, and blood cultures were not obtained.

Necropsy revealed acute bacterial endocarditis involving the mitral and aortic valves. There were also micro-abscesses in the brain. Cultures were not obtained at necropsy because the body had been previously embalmed.

Case 8

A 55 year old woman was admitted with a chief complaint of abdominal swelling. On previous hospital admissions the following diagnoses were made: diabetes mellitus with diabetic neuropathy, nephropathy, and retinopathy; myxedema secondary to thyroidectomy; and congestive heart failure secondary to arteriosclerotic heart disease.

On admission to this hospital she was found to have hepatosplenomegaly, with ascites and ab-

normal hepatic function tests. Paracentesis was performed, and cytologic studies were suggestive of malignancy. A repetition of the tests gave the same results, and exploratory laparotomy with hepatic biopsy revealed portal cirrhosis, portal hypertension, and esophageal varices, but no evidence of intra-abdominal malignancy. A hemolytic staphylococcal wound infection developed.

During the next two weeks the patient continued to have low grade fever despite antibiotic therapy, and gradually manifested the following signs: proteinuria, pyuria, hematuria, and a rising blood urea nitrogen; anemia and marked leukocytosis; changing cardiac murmurs and acute pulmonary edema. Finally, ileus, anuria and coma developed, terminating in death. No blood cultures were obtained, and bacterial endocarditis was not suspected. The cause of death was thought to be renal failure, peritonitis, or both.

Necropsy revealed acute bacterial endocarditis involving a calcified aortic valve. Hemolytic *Staphylococcus* (coagulase-positive) was the responsible organism. There were also micro-abscesses of the kidneys, portal cirrhosis, myocarditis, peritonitis, and infections of multiple organs. Permission to examine the brain was denied.

Case 9

A 60 year old man was admitted through the emergency room in a semicomatose condition. Relatives stated that four to five months prior to admission he had begun to have generalized aches and joint pains, fever and chills, anorexia and lethargy, dysuria and frequency of micturition, severe pain and tenderness in the left upper abdominal quadrant, and a progressive weight loss of 40 pounds. He had been treated outside the hospital with penicillin, streptomycin and blood transfusions, with some improvement. However, the weakness and weight loss persisted until he suddenly became stuporous on the day of admission.

On admission he was found to have marked pyrexia, pallor, cachexia, subcutaneous nodules under the scalp, small nonreactive pupils, an apical systolic murmur, hepatosplenomegaly, anemia, and hematuria. He died on the day of admission with a clinical diagnosis of lymphoma. Necropsy revealed bacterial endocarditis, probably subacute, involving the mitral valve (which also showed healed rheumatic lesions), with *Staphylococcus aureus* (coagulase studies not done). There were multiple septic emboli of the brain, spleen, kidneys, heart, and pancreas. Also noted were conjunctival petechiae which had not been described clinically.

Case 10

A 79 year old man was re-admitted to the hospital because of recurrent ascites, marked edema, and dyspnea. Diagnoses of portal cirrhosis and

arteriosclerotic heart disease had been made two years previously, and numerous paracenteses had been performed since then.

On admission he was confused, lethargic, and somnolent, and showed impairment of recent memory. Further examination revealed a harsh systolic precordial murmur, a presystolic gallop, cardiac enlargement, moist basal pulmonary rales, anasarca, Babinski's reflex on the left, jaundice, low-grade fever, pyuria and bacteriuria, leukocytosis, an elevated blood urea nitrogen, and reversal of the albumin-globulin ratio.

The patient was treated for congestive heart failure and hepatic failure, but on the fourth hospital day he lapsed into "hepatic" coma. A few days later a petechial rash appeared. He died on the tenth hospital day, apparently from hematemeses followed by aspiration. Bacterial endocarditis was not suspected.

Necropsy revealed acute bacterial endocarditis, probably staphylococcal, involving the aortic and mitral valves. Portal cirrhosis, esophageal varices, and evidence of tracheobronchial aspiration were also present. Permission to examine the brain was denied.

Discussion

Three of the above patients (cases 1, 2, and 3) presented findings primarily suggestive of renal disease. Renal insufficiency, as determined by a significant elevation of the nonprotein nitrogen or blood urea nitrogen levels, was found in 6 of the 8 patients so tested. Pyelonephritis is frequently confused with the clinical picture of bacterial endocarditis, as it can cause fever, anemia, positive blood cultures, and azotemia, as well as the primary renal complaints. In a recent report by Cummings and his co-workers⁶ of 18 cases of subacute bacterial endocarditis in patients over 50 years of age, pyelonephritis was coexistent in 5 of the cases, and in all 5 the findings were attributed to pyelonephritis alone. Chronic glomerulonephritis may also be suspected if hematuria is present. Bayles and Lewis⁵ have stated that the signs and symptoms of bacterial endocarditis in older patients are frequently attributed to renal disease, and that azotemia is more common in the elderly patient with the disease.

Three patients (cases 4, 5, and 6) initially presented manifestations primarily suggestive of a psychiatric disorder, cerebral disease, or both. In addition, 6 other patients eventually showed clinical evidence of cere-

Table 1
Significant Features In 10 Elderly Patients
with Proven Endocarditis

	Per cent
Fever of 101 F. or more	100
Splenomegaly (postmortem)	100
Fever of unknown etiology of more than 7 days	100
Anemia	90
Heart murmurs	80
Central nervous system signs or symptoms	80
Azotemia (6 of 8)	75
Congestive heart failure	70
Gross or microscopic hematuria	60
Remote foci of infection	60
Offending organism—staphylococcus	50+
Clinically recognized splenomegaly	30
Rheumatic heart disease	10
Petechiae	10
Clubbing	0
History of rheumatic fever	0
Positive blood cultures (3 or 4 patients)	

bral embolism, most of them as a terminal event.

In the elderly patient, the sudden appearance of hemiplegia or coma is likely to be attributed to senility or cerebral arteriosclerosis. In 1941, Toone¹⁵ reported 35 cases of bacterial endocarditis in patients of all ages, 17 of whom displayed cerebral manifestations due to embolism of the central nervous system. More recently, Gleckler^{7b} described subacute bacterial endocarditis in 10 patients over 55 years of age, 3 of whom presented major psychoses and one apoplexy.

Two patients (cases 7 and 8) apparently acquired fulminating acute bacterial endocarditis while already in the hospital undergoing treatment for other diseases. In one it was apparently secondary to a postoperative wound infection; in the other it was apparently secondary to infections of the urinary tract and/or skin following extensive burns. The altered clinical picture was assumed to be due to complications or progression of the primary disease (s). Zeman and Siegal¹⁴ state that acute bacterial endocarditis in the elderly is usually secondary to a pre-existing infection rather than to dental extractions or operations, and that it may complicate any infectious disease in older persons. In none of their 9 cases of acute bacterial endocarditis in patients over 60

years of age was the correct diagnosis suspected *ante mortem*.

One patient (case 9), admitted in a moribund state, had findings suggestive of lymphoma. Thus, in a late stage of the disease, where weight loss, weakness, anemia, and cachexia are prominent, bacterial endocarditis may simulate occult malignancy.

One patient (case 10) presented evidence of congestive heart failure and liver disease. Seven of the 10 patients had congestive heart failure at some time in their course.

Bayles and Lewis⁵ also found congestive heart failure to be more common in the elderly, and Zeman¹³ corroborated this finding in bacteria-free cases. When congestive heart failure appeared it generally responded poorly to digitalization, and was a significant factor in the patient's death. Friedberg and his co-workers², in a recent series of 95 cases of bacterial endocarditis of all ages, emphasized the increased incidence of congestive heart failure with delayed diagnosis.

The typical objective manifestations of bacterial endocarditis, as seen in young people, were also observed frequently in the 10 patients reported in this paper. Fever of at least 101 F. was found in all 10 of the patients, and was the only finding common to them all. This is in contrast to Gleckler's series of 10 cases of subacute bacterial endocarditis over 55 years of age in which 4 patients (40 per cent) remained afebrile throughout their hospitalization⁷.

Cardiac murmurs were described in 8 of the 10 patients, and changing murmurs were described in 3 of these 8. Of the other 2 patients, one had extensive burns over his chest which prevented cardiac auscultation, and the other had "loud gurgling rales" which may have masked a murmur. Hunter and Peterson⁹ state, in their monograph on bacterial endocarditis, that a cardiac murmur is present sooner or later in 99 per cent of the patients with the disease.

Anemia was present in 9 of the 10 patients, all but 2 of whom had hemoglobin levels below 10 Gm.

Objective evidence of embolism was present in 7, or 70 per cent of the patients, or in 9 (90 per cent) if hematuria is included

as evidence of embolism. Embolism of the central nervous system was found in all 7 patients whose brains were examined at necropsy. Clinically, cerebral embolism could have been suspected in 8 (80 per cent) if terminal embolism is included. This percentage is higher than is usually reported, and is in marked contrast to the experience of Anderson and Staffurth⁴, who found the occurrence of emboli uncommon.

Gross or microscopic hematuria was present in 6, or 60 per cent of the patients.

A palpable spleen was found in only 3 (30 per cent), and one of these had portal cirrhosis. Repeated attempts to palpate the spleen in the 2 patients suspected of having bacterial endocarditis were unsuccessful. At necropsy, however, all the patients were found to have enlarged spleens, ranging in size from 250 to 600 Gm. (normal range 80-180 Gm.) The two largest weighed 570 and 600 Gm., respectively, and were palpated clinically. In addition, 2 patients had prominent complaints of acute pain in the left upper abdominal quadrant, but splenic infarction was not suspected.

Positive blood cultures were found in 3 of the 4 patients (75 per cent) from whom they were obtained.

In none of the patients could a history of rheumatic fever be elicited. At necropsy, however, 2 patients were found to have pre-existing valvular damage; 1 had healed rheumatic lesions of the mitral valve, and 1 had calcification of the aortic valve.

None of the patients were described as having Osler's nodes, Janeway lesions, Roth spots, cafe-au-lait tint to skin, or clubbing. Monocytosis developed in one patient while he was in the hospital, and a petechial rash developed in another.

In retrospect, there were adequate objective findings of bacterial endocarditis to suggest the presence of the disease in many, if not all, of the patients. One half had fever, a cardiac murmur, and evidence of embolism. However, many of the typical manifestations of bacterial endocarditis, when present in an elderly patient, are too often disregarded or attributed to another cause. Cardiac murmurs are commonly present in older persons, and may be thought to be re-

lated to arteriosclerotic heart disease or cardiac dilatation.

Fever may be attributed to urinary tract infection, hidden malignancy, or bronchopneumonia. One may believe that an observed anemia is due to malnutrition, chronic renal disease, or malignancy. Embolism of the central nervous system may be attributed to cerebral thrombosis or hemorrhage secondary to hypertension. Hematuria may be related erroneously to chronic glomerulonephritis, and clubbing to chronic lung disease.

Conclusions

Although many of the cardinal features of bacterial endocarditis may be present in the elderly patient, the above cases illustrate that the overall clinical picture may be confusing and the diagnosis difficult. Coexisting disease may mask or overshadow the appearance of bacterial endocarditis. This problem is common in the elderly, in whom a multiplicity of disease processes is the rule rather than the exception. The ability of bacterial endocarditis in the elderly to simulate other disease processes in its mode of presentation may lead to misplaced clinical emphasis as to the primary site of disease. The diagnosis may also be partially obscured by the appearance of congestive heart failure, renal insufficiency, or cerebral embolism, all of which are more common in the older patient with bacterial endocarditis.

On the other hand, much of the misplaced clinical emphasis and diagnostic difficulty could have been obviated if a presumptive diagnosis of bacterial endocarditis had been made on the basis of Friedberg's^{1,2} minimal criterion; namely, "unexplained fever for more than a week in a patient with an organic (cardiac) murmur." If this criterion had been followed, blood cultures would have been done in more than 4 of the 10 cases, and undoubtedly a more satisfactory therapeutic result would have been achieved.

Thus, the difficulty in diagnosis of bacterial endocarditis in the elderly can probably be attributed to their multiplicity of disease *per se*, and to the failure to consider seriously this disease in the differential diagnosis, rather than to any inherent differ-

ence of behavior of bacterial endocarditis in different age groups.

Summary

Ten cases of bacterial endocarditis in patients over 50 years of age are presented as part of a series of 24 cases of necropsy-proven bacterial endocarditis, all appearing at the same institution from 1948 to 1961. Of the 14 patients under 50 years of age, the correct antemortem diagnosis was made in 12, or 86 per cent; of the 10 patients over 50 years of age, the correct antemortem diagnosis was made in two, or 20 per cent. The 10 cases in patients over 50 years of age are reported and analyzed as to mode of presentation and the presence or absence of typical features of the disease (table 1). Many of the patients initially presented a confusing clinical picture, but the typical features were also present in most of the patients.

The diagnosis of bacterial endocarditis is difficult to make in the elderly patient because of the frequent coexistence of other diseases which can simulate or obscure its clinical manifestations, and because bacterial endocarditis can itself simulate other diseases more commonly found in the elderly. Despite these difficulties, an awareness of bacterial endocarditis as a diagnostic possibility, and the careful collection of blood cultures in the elderly patient with unexplained fever, should increase significantly the accuracy of this diagnosis.

Acknowledgements

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Note

As stated in the June issue, a portion of figure 10 was missing from the article entitled "Renal Arterial Hypertension: Diagnosis and Treatment" by Drs. Paul W. Sanger, Frederick H. Taylor, Francis Robicsek, John C. Glenn, Jr., and Paul S. O'Brien (pp. 242-248). The complete figure is reproduced below.

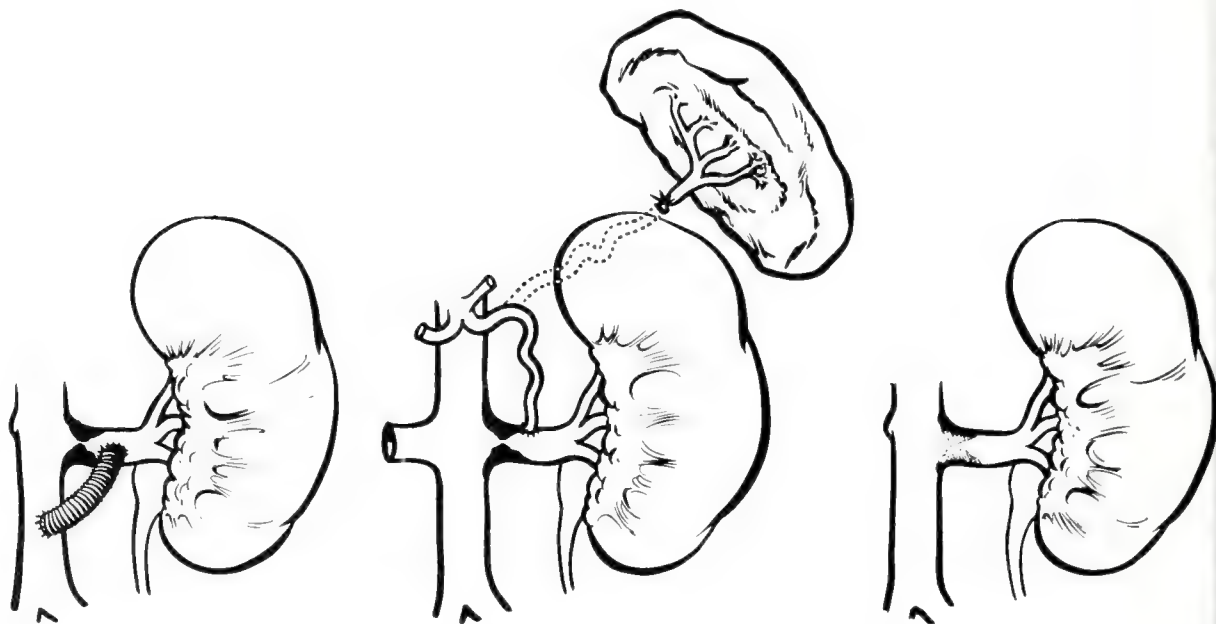


Fig. 10. The most acceptable surgical methods for revascularization of the kidney: By-pass with a synthetic graft anastomosing the end of the renal artery to the side of the aorta (a); a by-pass using the divided splenic artery (b); endarterectomy (c).

Eczema Due To Inhalants

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Far from being a simple condition, atopic eczema is extremely complex. The proper management of a patient with this condition requires a thorough diagnostic study. Factors which may be playing a role are foods, inhalants, bacteria, contactants, sweat retention, temperature changes, and emotions; and cases may sometimes be aggravated by the wrong type of therapy. Much more research is needed in the study of this condition.

"According to Hill⁽¹⁾, atopic dermatitis is characterized by: A hereditary disposition based on a constitutional abnormality. There is hypersensitivity of the deeper layer of the skin (true cutis) to protein or protein-like allergens. Hypersensitivity to these is usually manifested by wheal reactions of the immediate type to scratch or intradermal tests. Patch tests are usually negative.

"Responsible allergens may reach the sensitized tissue by ingestion or inhalation or by direct contact. Passive transfer tests are often positive. Typical sequelae may occur, often in this order, as the child grows older; recurrent upper respiratory disorders; pollinosis, and asthma." (Glaser²)

Sheldon, Lovell, and Mathews³ point out that there are three forms of atopic dermatitis: infantile, juvenile, and adult. Although infantile eczema differs from the others in certain respects, there are good reasons for believing that these three conditions are simply different phases of the same disease process.

At about the time of puberty eczema may flare up or go into remission; or it may disappear within a few years, depending somewhat upon adequate treatment. Exacerbations may occur between the ages of 18 and 21, and the disease may persist in a form refractory to treatment for decades during adult life.

It is my feeling that many physicians consider inhalants to be rarely, if ever, a cause of atopic dermatitis. The more I have studied patients with this condition, however, the more I realize how much of a causative

role they play, either alone or in combination with other factors. An increasing number of authors uphold this view and stress hyposensitization as a means of treatment, but others are still skeptical. I believe that the skepticism is due in part to a lack of thorough investigation of cases, to overdosage of the allergen in hyposensitization, or to simple disbelief that inhalants can play a part.

Rowe⁴ repeatedly emphasized the role of inhalants in the etiology of atopic dermatitis and its appropriate treatment by desensitization using minute doses of antigen. Tuft⁵ likewise stressed the importance of inhalants in the etiology and treatment of the condition. Among others, Cazort⁶, Zaken and Taub⁷, Feinberg⁸, and Diamond⁹ have reported cases of atopic dermatitis produced by various inhalants. Chief among the offenders were house dust, pollens, molds, and horse dander. Similarly, Epstein¹⁰ recommended desensitization to house dust in cases of generalized atopic dermatitis.

Diamond¹¹, in a review of 99 cases, found that nearly every patient was sensitive to house dust. This finding corresponds to the general experience. Of the pollens, ragweed was the most common reactor, and timothy (grass) and tree pollen (oak and birch) were next in frequency. Sheep's wool, because of its common use in clothing, was next in order.

Diamond⁹ found that 27 of 36 patients manifesting dermatitis before the age of 5 also had respiratory complaints. In 22 patients, dermatitis preceded nasal or bronchial allergy, but in 36 cases in which both dermatitis and respiratory allergy were first noted after the fifth year of life, the respiratory symptoms preceded the dermatitis in 26 cases.

Review of Thirty-Eight Cases in Children

The present study is a review of 38 pediatric cases of atopic dermatitis in which inhalants were felt to play a prominent role. Pertinent data are summarized in tables 1-4.

Table 1
Age of Onset

Age (years)	Per Cent of Cases
Less than 1	52.6
1-6	39.5
6-17	7.9

Table 2
Associated Allergy

	Per Cent of Cases
Nasal Allergy	47.4
Asthma	23.7
Others (bee sting)	2.6

Table 3
Previous Treatment*

	Per Cent of Cases
Diet	73.7
Steroids	52.6

*All patients had previously received some form of treatment

Table 4
Reaction to Skin Tests

Allergens	Per Cent of Cases
Inhalants	
Dust	98.5
Feathers	63.2
Cat	23.7
Dog	21.7
Wool	13.2
Grasses	44.7
Trees	31.6
Molds	42.1
Foods	
Milk	18.4
Eggs	31.6
Wheat	13.2
Fruits	71.0
Vegetables	57.0
Condiments	50.0
Nuts	5.3

Thirty-seven of the 38 patients had eczema all the year around. Of the 37, some were worse in the winter, spring, summer, or fall, or a combination of these seasons (for example, some patients were worse in winter and again in summer). Twenty patients were worse in winter, and gave marked reactions to dust; 6 were worse in the fall and reacted to ragweed; 12 were worse in the spring, and gave positive reactions to tree pollens. The remaining patient had eczema only in April and May, being asymptomatic the remainder of the year. Skin tests revealed sensitivity to tree pollens.

Treatment

All patients received elimination diets for at least two weeks before hyposensitization was instituted. Among other measures used were the elimination of soaps and other irritating contactants (soap substitutes such as Aveeno were used), sedation, soaks and ointments, vitamin supplements, and environmental control measures.

If the patients did not respond within two to four weeks, hyposensitization was instituted. Table 4 shows the chief antigens used.

Table 5
Antigens Used in Hyposensitization

Antigen	Per Cent of Cases
Autogenous house dust	89.5
Molds	60.5
Bacteria	86.8
Pollens	42.1

Results of hyposensitization

Thirty-six and six-tenths per cent of the patients undergoing hyposensitization experienced a definite exacerbation of the eczema when a certain concentration of the antigen was reached. If the concentration was kept below this level, the skin remained fairly clear.

Hyposensitization resulted in complete clearing of the skin in 57.9 of the cases and marked improvement in 42.1 per cent.

Illustrative Cases

Case 1

A 5 year old white girl was seen in April, 1960, with a history of seasonal eczema from approximately the first part of April through May. The child was born in February, and rash first appeared in April the following year, when she was about 14 months of age. The rash had recurred, with concomitant symptoms of hay fever, during the same two months for the past four years, the skin being clear the rest of the year. In mid-April of 1957 she had had some wheezing for the first time.

Skin testing revealed moderate reaction to hickory, maple, oak, and poplar tree pollens. The nasal smear revealed 10 per cent eosinophils. Hyposensitization against these pollens was instituted, and in the following year her skin showed only slight evidence of the rash. There has been no fever or asthma.

Case 2

The patient, a 4½ year old boy, was first seen by me in August, 1957. He had had eczema since

1½ years of age, or for about three years. The rash was located chiefly in the bend of the elbows and knees, and on his cheeks. The skin was fairly clear in the summer, but the condition became greatly aggravated around October, when heat is usually turned on indoors, and persisted throughout the winter months. His nose sometimes became a little congested in damp weather, and he began wheezing in November, 1957.

Skin testing disclosed a marked reaction to house dust and a moderate reaction to feathers, dog epithelium (the family has a dog), chocolate, and vanilla. An elimination diet, environmental control measures, and symptomatic therapy gave some, but not much, relief.

Hyposensitization was instituted, and there was gradual clearing of the skin during the winter of 1961, almost complete clearing of the nasal allergy, and no signs of asthma. On a few occasions the rash flared up when the antigen was increased beyond a certain point. The mother called recently to say that the child's skin had been fairly clear until she began cleaning house and stirred up a great deal of dust. The rash then flared up for about two days.

Case 3

This little girl had an onset of eczema at 3½ years of age and saw me at the age of 4. She was treated by hyposensitization for about six months, with complete clearing of the skin. Tests showed little reaction to foods, but a marked reaction to house dust during hyposensitization. After one injection of the antigen, there was a definite exacerbation of the rash within a few minutes.

Case 4

This little boy began to have eczema at 1 year of age, and was seen by me at the age of 3. He had no associated allergies. Elimination diets and topical therapy produced no improvement. Hyposensitization for one year resulted in complete clearing of the skin.

Case 5

A 15 year old girl had had eczema for four years, and had had received a variety of treatments. Skin tests showed a marked reaction to only one antigen—house dust—and a moderate reaction to dog epithelium (she had a dog). She also reacted slightly to a few molds and foods. Hyposensitization for several months resulted in marked improvement of the skin.

Case 6

A 16 year old girl first saw me on January 4, 1958, because of eczema on her face, arms, and hands since the age of 6 months. The rash was worse in winter, but was present the year round. She had hay fever during the spring (March and April) and fall (August and September). On skin

testing she gave marked reactions to dust and ragweed, and a moderate reaction to tree pollen.

Hyposensitization, instituted only two months ago, has resulted in gradual clearing of the skin. She now says that her skin is clearer now than it has ever been.

Comment

As indicated previously, opinion varies as to the cause and treatment of atopic eczema. As Baer¹² has said, atopic dermatitis is not only one of the more common dermatoses, but also one about which a lively argument can always be precipitated at the slightest provocation. The reason seems to be rather simple: it is an interesting complex condition, in which morphologic, physiologic, immunologic, psychosomatic, genetic, climatic, and many other factors are involved.

Patients with this conditions who are not responding to elimination diet and local therapy should be tested thoroughly for allergies to determine the causative agents. If after careful study it is felt that inhalants are responsible, treatment should be instituted.

When I first began using hyposensitization in the treatment of atopic eczema, the result were disappointing. By changing the dosage of antigen, however, I found that the dosage I had been using was too high. Smaller doses gave better results. I have found that smaller doses of antigen are more effective in the treatment of atopic dermatitis than those used in the treatment of respiratory allergies.

Some of the evidence which makes me feel that inhalants play a prominent role in eczema are:

1. The onset or aggravation of the condition during the season when the causative inhalant is more prevalent (that is, tree pollens in the spring, grasses in the summer, weeds in the fall, and dust in winter).

2. A positive reaction to the inhalant on skin testing.

3. Improvement with environment control measures, eradicating, if possible, the causative inhalant or removing the patient from his environment. (How many of us have seen patients who experienced a remission while at the beach! When house dust is a large factor, it is often difficult to remove all dust from the environment.)

Some patients manifest atopic eczema in infancy and continue to have it throughout life. According to Ratner and Collin-Williams¹³, Vowles and colleagues followed 84 patients in whom the onset occurred before 1 year of age, and who had to be hospitalized because of the severity of the disease. At the time of follow-up, the patients ranged in age from 10 to 20 years. Six had died during infancy. Of the 78 patients followed, 55 per cent had continued to have eczema up to the age of 13 years. There was a greater tendency for the rash to clear during the first three years of life, as it did in 27 per cent of the patients.

As we know also, many patients with atopic eczema have other manifestations of allergy, such as asthma and hay fever. It is hoped that by properly treating these patients early, it may be possible to prevent some of these allergies from developing in later life.

Although hyposensitization will not help all patients with eczema, I believe that with careful selection of cases it has definitely helped a high percentage of my patients. By careful evaluation and diagnosis, perhaps many of the difficult cases which remain unimproved by other methods may be helped by hyposensitization.

Summary

1. Inhalants appear to play a definite role in many cases of atopic eczema.

2. Each patient must be studied to determine the cause of the condition, and then given the proper treatment.
3. Careful hyposensitization to the causative inhalants in many instances may relieve the eczema.

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GROWTH IN CLINICAL RESEARCH

In the past 15 years there has been a striking growth in clinical research as a two-way bridge between the laboratory and clinical practice. Coupled with this is the achievement of the pharmaceutical industry in the manufacture, quality, control, and marketing of new products. In consequence, the lag between scientific discovery and widespread use of new drugs has been shortened.—Luther Terry, M.D., Surgeon General, U. S. Public Health Service, to 1961 National Health Forum.

Tick Paralysis

Report of a Case

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AND

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Tick paralysis is an acute ascending paralysis of dramatic nature ranging in severity from ataxia and slight weakness of the legs to quadriplegia, bulbar paralysis, respiratory failure and death. It has been described in humans since 1912, the first reported case in North America being that of Todd¹. The earlier cases in this country were all in the far west, and were caused by the wood tick, *Dermacentor andersoni*. The first eastern report was from Georgia, in 1938². Since then there have been scattered reports from the East and South, the majority being due to the dog tick, *Dermacentor variabilis* Say. In several, however, the wood tick has been incriminated³, and in one case from Florida, *Amblyomma americanum*⁴.

The incidence of tick paralysis is suggested by several reviews such as that of Rose⁵, who in 1954 was able to find 332 cases reported in the Pacific northwest, and of Costa³ who collected 23 cases in 1952 from the Atlantic seaboard.

Since the disease is more common in animals, particularly dogs, than in man, veterinarians are more familiar with it than physicians. In animals, immunity to the toxin is developed⁶; thus paralysis is found chiefly in the younger ones. It is more likely to occur in both man and animals from May through July, when tick infestation is heaviest³.

The mechanism of tick paralysis was shown by earlier workers to be due to a toxin produced by the gravid female tick and contained in the salivary glands as well as in the eggs⁷. It has now been demonstrated by Murnaghan⁸ that in dogs the toxin acts by inhibiting the release of acetylcholine at the neuromuscular junctions.

The clinical picture of tick paralysis is

characteristic. The patient is usually a female child, whose long hair provides an optimal situation for a tick to remain implanted and undetected for the four to eight days necessary for toxin to be produced. Often there is irritability or malaise for 24 hours prior to the onset of ataxia or weakness of the legs. Following this phase there is rather rapid progression of ascending paralysis over the next 6 to 24 hours, with loss of ability to stand, sit, use the arms, speak and swallow, in that order. The deep tendon reflexes are lost at the onset; the superficial reflexes may or may not be present. The temperature, pulse, hemogram and cerebrospinal fluid are normal. If the tick is not removed, the respiratory centers become depressed and death ensues. With removal of the tick there is definite improvement in a matter of minutes to hours, and complete recovery in one to three days.

Treatment consists of removing the tick in its entirety. Many methods have been suggested for this procedure. They include (1) the use of a volatile substance such as ether, gasoline, kerosene, or benzene on the head of the tick; (2) heat from a lighted cigarette or match near the tick; (3) covering the tick with petrolatum. With any of these measures 5 to 10 minutes should be allowed for the tick to loosen its grip prior to removal³.

The only previously reported human case of tick paralysis from North Carolina was in 1940 in a four year old Negro girl⁹. In this instance death resulted from respiratory paralysis. The following case is being reported because of the rarity of the condition and the grave prognosis if unrecognized.

Case Report

A 4 year old white girl was admitted to the Moses H. Cone Memorial Hospital, Greensboro, on July 28, 1961, because of par-

From the Pediatric Service, Moses H. Cone Memorial Hospital, Greensboro, North Carolina.

alysis. She had been completely well until the day prior to admission, when for a period of three hours in the morning she was unable to walk and insisted upon being carried. That evening she appeared normal, but early the following day she complained of pain in the back and shortly thereafter gradually lost the use of her legs, then her arms, and finally the power of speech. Vomiting occurred en route to the hospital, with much of the vomitus coming through the nose.

When seen in the emergency room at noon the patient was quiet, aware of her surroundings, and in no obvious distress. Temperature, pulse, and respirations were normal. There was complete flaccid paralysis of the arms and legs, and she was unable to stand, sit, or control her head. There was absence of deep tendon and superficial reflexes, but no apparent sensory loss. Extraocular movements were full, and pupillary reactions normal, but there was marked, slow, horizontal nystagmus on slight lateral gaze to either side. The gag reflex was totally absent, and severe dysphonia was present. The neck was supple; the eye-grounds were normal. The remainder of the examination was negative except for the presence in the left occipital region of a fully engorged tick, with the mouth parts embedded.* (Hemogram, urinalysis, and cerebrospinal examinations were normal at the time of admission.)

*Identified by the University of North Carolina Medical School Department of Parasitology as a gravid female dog tick, *Dermacentor variabilis* Say.

Within 30 minutes of removal of the tick the gag reflex had partially returned. During the next two-hour period muscle strength improved dramatically, and the patient was able to sit alone at the conclusion of this period. During the next 36 hours there was complete disappearance of all neurologic abnormalities.

Summary

A brief review of tick paralysis is given, and the second case from North Carolina is reported. The importance of considering this diagnosis in any instance of ascending paralysis is stressed.

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THE BRITISH VIEWPOINT

When some of our American colleagues suggest that competition in the drug industry has become excessive, then we should do well to take heed. But in the criticism leveled at the pharmaceutical industry too little notice, we suggest, is taken of the risks to which the industry is subjected, and too little emphasis is placed on its needs for profits, not only from purely business considerations, but also for money to plough back into research.—*British Medical Journal*.

Report from The Duke University Poison Control Center

JAY M. ARENA, M.D., *Director*

MERCURY

Mercury is a highly toxic, silver-white liquid metal which is slightly volatile at ordinary temperature, being readily absorbed by the inhalation of its fumes.

Mercury salts are widely used in medicine as cathartics, antiseptics and diuretics, and in agriculture and industry in the form of dusting or wettable powders and fumigants. Since every known form of mercury compound is potentially dangerous, the opportunity for accidental intoxication is rather widespread. Acute poisoning, however, occurs most frequently on the farm or in the home, while the subacute and chronic forms are more common in industry and medicine. The mercuric ion has a specific affinity for the sulfhydryl groups of intracellular proteins, and, in addition, very effectively precipitates protein substances. Solutions of mercuric salts are also markedly corrosive. The most dangerous of these when swallowed is mercuric chloride. Acute poisoning, accidental or willful, is frequently caused by the ingestion of this compound even though it is now manufactured as deep blue, coffin-shaped tablets labeled "poison." Acute mercury vapor poisoning from a freshly painted gas heater was responsible recently for the death of three children.

Metallic mercury, since it is not absorbed, is nontoxic. The occasional ingestion, then, of this compound by children from broken or cracked thermometers should give no great concern.

Death has resulted from as little as 0.5 Gm. of mercury, although the lethal dose for adults is between 1 and 4 Gm. Absorption through the gastrointestinal tract is so quick and complete that the outcome depends greatly upon what happens during the first 15 minutes or so, particularly in respect to vomiting or the possibility of rapid gastric lavage.

In a few minutes to half an hour following ingestion, the patient develops symptoms of an acute gastrointestinal inflammation. He complains of a metallic taste, thirst, nausea, retching, and pain in the pharynx and abdomen, followed by vomiting of blood-stained material. Later, with tenesmus and bloody diarrhea, the clinical picture is that of hemorrhagic gastritis and colitis, with continuous or intermittent suppression of urine, uremia, and collapse. The corrosive preparations of mercury cause immediate necrosis of the buccal, pharyngeal, and gastrointestinal mucosa. The patient may die within hours after vomiting severe enough to produce electrolyte losses leading to peripheral vascular collapse.

The second phase of poisoning, which develops in a patient surviving one to three days, is characterized by stomatitis, gastritis, colitis, and severe renal tubular degeneration. It is seen even with noncorrosive (mercurous or monovalent) preparations of mercury, regardless of the portal of entry. Death at this time is usually the result of irreversible renal failure.

The treatment of mercury poisoning aims at the precipitation and removal of mercury from the gastrointestinal tract, the inactivation of absorbed mercuric ions, and general supportive measures to maintain electrolyte and fluid balance. To be successful, treatment must be prompt and intensive. The administration of egg-white or milk may be helpful by precipitating mercury and thus delaying its absorption. Better results are produced by immediate gastric lavage with egg-white solution or with 5 per cent sodium formaldehyde sulfoxylate (which reduce mercuric chloride to metallic mercury). The sodium formaldehyde sulfoxylate can also be mixed with a 3 per cent solution of sodium bicarbonate. About 200 cc. of the solution should be left in the stomach. In the absence of this compound, a 2 to 5 per cent solution of the sodium bicarbonate can be used. Also recommended is 15 to 30 Gm. of sodium or magnesium sulfate in 6 to 8 ounces of water, unless there is diarrhea.

To inactivate the mercury already absorbed, therapy with BAL, which has greater

affinity for the mercuric ion than do the sulfhydryl groups of drugs, is instituted as promptly as possible. There is some difference of opinion as to the dosage to be administered. Gleason and associates recommend giving 3.0 mg. of BAL per kilogram of body weight every four hours for six injections on the first two days, the same dose every six hours on the third day, and then 3.0 mg. per kilogram every 12 hours until recovery occurs. If intoxication is mild, 2.5 mg. per kg. is recommended. Other clinicians use as much as 5.0 mg. per kg. initially, followed by 2.5 mg. per kg. every three hours for the first 24 hours in cases of severe poisoning. Shock due to peripheral vascular collapse is treated by the administration of whole blood or plasma and infusion of dextrose and saline. Renal insufficiency is managed by the usual therapy for acute renal failure.

It has been shown in recent experiments that D-penicillamine is effective in protecting the rat from lethal effects of mercuric chloride. Interest in the sulfhydryl amino acid, penicillamine (beta, beta-dimethyl-cysteine) and its derivatives, has led to work suggesting that these new agents may be of value in the treatment of heavy metal intoxication. It has been demonstrated that penicillamine increases the urinary excretion of copper in people with an accumulation of excess copper in the tissues. The compound has also been shown to increase lead and iron excretion in humans with lead intoxication and hemosiderosis.

A protective action in rats against the lethal effects of mercuric chloride has also been demonstrated for dl-penicillamine and, more recently, for N-acetyl-dl-penicillamine. Of the three compounds, the last, N-acetyl-dl-penicillamine, appears to be the most effective, since this compound is more active and less toxic in saving rats from the lethal effects of mercuric chloride.

The greater protective action of N-acetyl-dl-penicillamine may be due to greater stability of the N-acetyl-dl-penicillamine-

mercury complex (the presence of the acetyl radical protects the amino group from metabolic reaction or degradation), or to the fact that the N-acetyl compound penetrates cells to a greater extent than does penicillamine.

The greater toxicity of dl-penicillamine over d-penicillamine or N-acetyl-dl-penicillamine seems to be associated with the l-penicillamine isomer. Growth in rats and in some microorganisms has been inhibited by the l isomer—possibly related to the anti-vitamin B₆ activity of l-penicillamine.

The mechanism underlying the protective action of the penicillamine derivatives is as yet unknown. The exact structure of the resulting metal-penicillamine derivative compounds has not yet been determined. It is interesting that BAL (2, 3-dimercaptopropanol) is dithiol, while penicillamine and its derivatives are monothiols. BAL is an effective antidote in heavy metal intoxication because its two sulfhydryl groups successfully compete with tissue enzyme sulfhydryl groups for the offending metal to form a more stable ring with the metal. No doubt the sulfhydryl grouping of the penicillamine derivatives plays an important role in protecting against heavy metals. However, the exact mechanism is probably more complex than direct reaction between sulfhydryl and metal, for other monothiols such as cysteine and glutathione are not as protective as the penicillamine derivatives.

BAL is somewhat more effective than d-penicillamine and dl-penicillamine in protecting rats against the lethal effects of mercuric chloride. The oral effectiveness of the penicillamine derivatives is given as an advantage of these compounds over BAL. However, since severe vomiting is an almost constant early manifestation of heavy metal intoxication, an oral antidote might not be too advantageous. Nevertheless, these investigations of the penicillamine derivatives are a valuable contribution to basic knowledge about poisoning. Further clinical evaluation may permit the addition of these compounds to the too-small list of already existing antidotes.

Committees & Organizations

Schedule of Committee Commission Appointments, 1962-1963

NOTE: The Committees listed herein have been authorized by President John R. Kernodle, and/or are required under the Constitution and By-Laws.

Particular note should be taken of the authorization of the House of Delegates of a Commission form of organizational activity and that all Committees, excepting Committee on Nomination, Committee on Negotiation, and Committee on Grievances, are segregated under the respective Commission in which the function of the committee logically rests. This will tend to eliminate overlapping and duplication in activity programs and result in coordination of the work of the Society in a manner to lessen the work of the delegates in the Annual Meeting of the House of Delegates.

(The President, Secretary and Executive Director of the Society are ex-officio members of all Committees and, along with the Commission Chairman, should receive notice of meetings, agenda and minutes of committee meetings during the activity year.)

I. ADMINISTRATION COMMISSION

Wayne J. Benton, M.D., *Chairman*
2320 Battleground Road Committee
Greensboro, North Carolina Listing

1. Finance, Committee on (I-1) #19

Wayne J. Benton, M.D., *Chairman*
2320 Battleground Road, Greensboro

2. Liaison to Study Integration of Negro Physicians into Medical Society of State of North Carolina (I-2) #44

J. Street Brewer, M.D., *Chairman*
P. O. Box 98, Roseboro

3. Trust Study Committee (I-3) #45

Jesse Caldwell, M.D., *Chairman*
114 W. Third Street, Gastonia

II. ADVISORY AND STUDY COMMISSION

Hubert McN. Poteat, Jr., M.D., *Chairman*
713 Wilkins Street, Smithfield

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Box 232, Red Springs

2. American Medical Education & Research Foundation, Committee on (II-2) #2

Ralph B. Garrison, M.D., *Chairman*
Box 1169, Hamlet

3. Blue Shield, Committee on (II-3) #8

Jacob H. Shuford, M.D., *Chairman*
7 Main Avenue Place, S.W., Hickory

4. Constitution & By-Laws, Committee on (II-4) #13

Roscoe D. McMillan, M.D., *Chairman*
Box 232, Red Springs

5. Credit Bureau, Committee on Medical (II-5) #14

W. Howard Wilson, M.D., *Chairman*
403 Professional Bldg., Raleigh

6. Industrial Commission of North Carolina, Committee to Work with (II-6) #23

Thomas B. Dameron, Jr., M.D., *Chairman*
600 Wade Avenue, Raleigh

7. Medical Care of Dependents of Members of Armed Forces, Committee on (MEDI-CARE) (II-7) #28

David M. Cogdell, M.D., *Chairman*
911 Hay Street, Fayetteville

8. Student A.M.A. Chapters, Committee (II-8) Advisory to #41

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Duke Hospital, Durham

9. Blue Shield Deputation to National Blue Shield (II-9) #46

T. S. Raiford, M.D., *Chairman*
301 Doctors Bldg., Asheville

10. Relative Value Schedule, Committee on (II-10) #47

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615 St. Mary's Street, Raleigh

2. Audio-Visual Scientific Postgraduate Instruction, Committee on (III-2) #5

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Cabarrus Memorial Hospital, Concord

3. Awards, Committee on (III-3) #6

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South Aspen Street, Lincolnton

4. Delegates, Committee on Credentials to House of Delegates (III-4) #15

T. Tilghman Herring, M.D., *Chairman*
Wilson Clinic, Wilson

5. Exhibits, Committee on Scientific (III-5) #7

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6. Golf Tournament, Committee on Medical (III-6) #21

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P. O. Box 158, Enka

7. Scientific Works, Committee on (III-7) #7

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328 W. Davis Street, Burlington

8. Committee on Re-Evaluation and Attendance of Medical Meetings (III-8) #52

Amos N. Johnson, M.D., *Chairman*
Garland

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 4. **Necrology, Committee on (IV-4)** #30
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 6. **Postgraduate Medical Study (IV-6)** #35
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 7. **Health Careers, Committee on (IV-7)** #51
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(Documentation Presentation)
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 5. **Rural Health, Committee on (V-5)** #39
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Box 27, Sylva
 6. **Insurance Industry Liaison Committee (V-7)** #43
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 7. **Committee Liaison to N. C. Pharmacy Association (V-7)** #48
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 8. **Committee Advisory to North Carolina Highway Patrol on Traffic Safety (5) (V-8)** #49
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Duke Hospital, Durham
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2. **Board of Public Welfare of North Carolina, Committee Advisory to, (VI-2)** #9
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 3. **Cancer, Committee on (VI-3)** #10
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 4. **Child Health, Committee on (VI-4)** #11
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 6. **Maternal Health, Committee on (VI-6)** #26
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(and Secretary)
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 7. **Mental Health, Committee on (VI-7)** #29
Allyn B. Choate, M.D., *Chairman*
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 8. **Occupational Health, Committee on (VI-8)** #34
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 9. **Poliomyelitis, Committee on (VI-9)** #36
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 11. **School Health, Committee on (VI-11)** #40
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 12. **Veterans Affairs, Committee on (VI-12)** #42
Samuel L. Elfmon, M.D., *Chairman*
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 13. **Committee on Venereal Disease (VI-13)** #50
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- VIII. GRIEVANCES, COMMITTEE ON (Not a commission By-Law provided)**
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- Warner Wells, M.D., N. C. Memorial Hospital, Chapel Hill
- John C. Reece, M.D., Grace Hospital, Morganton
- Harvey C. May, M.D., 1524 Elizabeth Avenue, Charlotte 4
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- Harry B. Underwood, M.D., 709 W. End Avenue, Statesville
- 3. Committee on Anesthesia Study Commission (12) VI-1**
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- Horace M. Baker, Jr., M.D., Medical Arts Building, Lumberton
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- Charles R. Stephen, M.D., Box 3535, Duke Hospital, Durham
- Thomas B. Wilson, M.D., Rex Hospital, Raleigh
- Helen E. Hall, M.D., Box 10502, Cameron Village, Raleigh
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- Thomas A. Henson, M.D., (1963), 1006 Professional Village, Greensboro
- Harry L. Johnson, M.D., Jr., (1965), Eastern Rowan Medical Center, Granite Falls
- Livingstone Johnson, M.D., (1964), 408 W. Warren Street, Shelby
- William J. McKinnon, M.D., (1963), 407 S. Green Street, Wadesboro
- Joseph M. Hitch, M.D., (1965), Professional Building, Raleigh
- Luther M. Talbert, M.D., (1965), N. C. Memorial Hospital, Chapel Hill
- John K. Williford, M.D., (1963), 900 9th Street, Lillington
- Mr. Emory S. Hunt, Consultant, University of North Carolina, Chapel Hill
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- William McN. Nicholson, M.D., Duke Hospital, Durham
- Leonard Palumbo, Jr., M.D., N. C. Memorial Hospital, Chapel Hill
- Carl N. Patterson, M.D., 1110 West Main Street, Durham
- Consultants: 1962-1963 Section Chairmen:
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- M. Frank Sohmer, Jr., M.D. (Internal Medicine), Professional Building, Winston-Salem
- Daniel S. Currie, Jr., M.D., (Ophthal & Dtol), 111 Bradford Ave., Fayetteville

Isaac E. Harris, Jr., M.D. (Surgery), 1200 Broad St., Durham
 Orville D. MacAlpine, M.D., (Pediatrics), 1061 Haywood Rd., W. Asheville
 Fletcher S. Sluder, M.D., (Ob-Gyn), 406 Flatiron Bldg., Asheville
 Elizabeth Corkey, M.D., (Pub. Health & Ed.), 1200 Blythe Blvd., Charlotte
 Thad J. Barringer, M.D., (N&P), 1330 St. Mary's St., Raleigh
 Owen W. Doyle, M.D., (Radiology), 1013 Professional Village, Greensboro
 H. Z. Lund, M.D., (Pathology), Moses Cone Hospital, Greensboro
 Luther C. Hollandsworth, M.D., (Anesthesia), Box 1187, Lumberton
 George W. Holmes, M.D., (O&T), 2240 Cloverdale Ave., Winston-Salem
 Bruce Caldwell, (Student AMA), UNC School of Medicine, Chapel Hill

9. Committee on Blue Shield (9) II-3

Jacob H. Shuford, M.D., *Chairman* (1965), 7 Main Ave Place, S. W., Hickory
 W. Z. Bradford, M.D., (1964), 1509 Elizabeth Ave., Charlotte
 William J. Cromartie, M.D., (1963), UNC School of Medicine, Chapel Hill
 Willard C. Goley, M.D., (1965), 214 N. Market Street, Graham
 John R. Hoskins, III, M.D., (1963), 203 Doctors Bldg., Asheville
 Frederick C. Hubbard, M.D., (1964), 408 8th St., North Wilkesboro
 E. Eugene Menefee, Jr., M.D., (1963), Duke Hospital, Durham
 Max P. Rogers, M.D., (1965), 624 Quaker Lane, High Point
 Walter T. Tice, M.D., (1964), 624 Quaker Lane, High Point
 Consultants: George E. Prince, M.D., (Pediatrics), 318 South St., Gastonia
 (without vote) James F. Reinhardt, M.D., (Radiology), Duke Hospital, Durham
 George M. Cooper, M.D., (OALR), 2111 Clark Ave., Raleigh

9. Committee Advisory to North Carolina State Board of Public Welfare (8) VI-2

Amos N. Johnson, M.D., *Chairman*
 Joseph W. Baggett, M.D., 911 Hay Street, Fayetteville
 Bruce B. Blackmon, M.D., P. O. Box 8, Buies Creek
 J. Street Brewer, M.D., P. O. Box 98, Roseboro
 Allyn B. Choate, M.D., 1012 Kings Drive, Charlotte
 J. Samuel Holbrook, M.D., Davis Hospital, Statesville
 Paul F. Maness, M.D., 328 W. Davis St., Burlington
 Wm. Raney Stanford, M.D., 111 Corcoran St., Durham

10. Committee on Cancer (12) (Legal—1 each Congressional District) VI-3

D. Ernest Ward, Jr., M.D., *Chairman* (7th), 304 Medical Arts Bldg., Lumberton

Charles I. Harris, Jr., M.D., (1st), Martin General Hospital, Williamston
 Samuel L. Parker, M.D., (2nd), Kinston Clinic, Kinston
 J. Cooper Howard, Jr., M.D., (3rd), Sampson County Memorial Hospital, Clinton
 Hubert McN. Poteat, Jr., M.D., (4th), 713 Wilkins St., Smithfield
 James F. Marshall, M.D., (5th), 310 W. 4th Street, Winston-Salem
 Charles E. Flowers, Jr., M.D., (6th), N. C. Memorial Hospital, Chapel Hill
 Mark McD. Lindsey, M.D., (8th), Hamlet Hospital, Hamlet
 David L. Pressly, M.D., (9th), 1025 Davie Street, Statesville
 Joe M. Van Hoy, M.D., (10th), 804 Doctors Bldg., Charlotte 7
 Harry V. Hendricks, M.D., (11th), Rutherford Hospital, Rutherfordton
 Joshua F. B. Camblos, M.D., (12th), 208 Doctors Bldg., Asheville

11. Committee on Child Health (9) VI-4

Angus M. McBryde, M.D., *Chairman*, 809 W. Chapel Hill Street, Durham
 P. J. McElrath, M.D., 500 St. Mary's Street, Raleigh
 Dan P. Boyette, Jr., M.D., 217 W. Main Street, Ahsokie
 Harrie R. Chamberlin, M.D., UNC School of Medicine, Chapel Hill
 Katherine Anderson, M.D., 138 N. Hawthorne Rd., Winston-Salem
 John W. Nance, M.D., 401 Cooper Drive, Clinton
 Wm. H. Patton, Jr., M.D., 305 College St., Morganton
 Robert L. Vann, M.D., 301 Miller Street, Winston-Salem
 Robert F. Poole, Jr., M.D., 817 Hillsboro St., Raleigh

12. Committee on Chronic Illness, Including Tuberculosis and Heart Disease (15) VI-5

Thomas R. Nichols, M.D., *Chairman*, 107 Queen Street, Morganton
 Stephen R. Bartlett, Jr., M.D., 1001 E. 4th Street, Greenville
 Robert H. Dovenmuehle, M.D., Duke Hospital, Durham
 O. David Garvin, M.D., Health Department, Chapel Hill
 Robert A. Gregg, M.D., Box 3438, Duke Medical Center, Durham
 Emery T. Kraycirik, M.D., Box 1153, Burlington
 Thomas D. Long, M.D., Box 77, Roxboro
 Edward Bloxton Mabry, M.D., 823 N. Elm St., Greensboro
 Daniel A. McLaurin, M.D., Box 27, Garner
 Elbert L. Persons, M.D., Duke Hospital, Durham
 Charles R. Welfare, M.D., Professional Building, Winston-Salem
 Richard C. Proctor, M.D., Bowman Gray, Winston-Salem

John L. Shirley, M.D., 1 Battle Square,
Asheville
George F. Verdone, M.D., 1012 Kings Drive,
Charlotte
Donald D. Weir, M.D., N. C. Memorial Hos-
pital, Chapel Hill
William H. Flythe, M.D., 624 Quaker Lane,
High Point

**13. Committee on Constitution & By-Laws
(5) II-4**

Roscoe D. McMillan, M.D., *Chairman*, Box
232, Red Springs
H. J. Carr, Jr., M.D., 405 Cooper Drive,
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G. Westbrook Murphy, M.D., 103 Doctors
Bldg., Asheville
Edward W. Schoenheit, M.D., 46 Haywood
St., Asheville
Louis deS. Shaffner, M.D., 300 S. Hawthorne
Rd., Winston-Salem

**14. Committee on Medical Credit Bureaus
(7) II-5**

W. Howard Wilson, M.D., *Chairman*, 403
Professional Bldg., Raleigh
Paul McN. Deaton, M.D., 766 Hartness Rd.,
Statesville
Robert M. Fales, M.D., 913 Murchison Bldg.,
Wilmington
Fred K. Garvey, M.D., 440 Fairfax Drive,
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John R. Hoskins, III, M.D., 203 Doctors
Bldg., Asheville
Ross S. McElwee, Jr., M.D., 1340 Romany
Road, Charlotte
Ralph J. Sykes, M.D., 204 Rawley Ave.,
Mt. Airy

**15. Committee on Credentials of Delegates to
House of Delegates (5) III-4**

T. Tilghman Herring, M.D., *Chairman*,
Wilson Clinic, Wilson
John F. Ditunno, Jr., M.D., Hot springs
James E. Hemphill, M.D., Richmond Coun-
ty Memorial Hospital, Rockingham
Robert M. Whitley, M.D., 144 Coast Line
Street, Rocky Mount
Charles B. Wilkerson, M.D., 100 S. Boylan
Ave., Raleigh

**16. Committee on Emergency Medical and
Military Service (7) IV-4**

George W. Paschal, Jr., M.D., *Chairman*,
1110 Wake Forest Road, Raleigh
Charles E. Cloninger, M.D., 305 E. 1st St.,
Conover
H. Mack Pickard, M.D., 7 N. 17th Street,
Wilmington
W. D. Rippy, M.D., 1610 Vaughn Road,
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George A. Watson, M.D., 306 S. Gregson
St., Durham
Robert E. Miller, M.D., 1822 Brunswick
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Chauncey L. Royster, M.D., 515 St. Mary's
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**Subcommittee on Immunization and
Innoculation (8)**

Richard S. Kelly, M.D., *Chairman*, 1606

Morganton Road, Fayetteville
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Hill St., Durham
George A. Watson, M.D., 306 S. Gregson
St., Durham
E. H. Ellinwood, M.D., 300 E. Northwood
St., Greensboro
L. W. Hamrick, M.D., 194 Lake Concord
Rd., Concord
Roy D. Daniels, M.D., Ferguson Building,
Sylva
J. D. Larson, Jr., M.D., 410 East Main St.,
Sanford
F. Henry Longino, M.D., 1800 W. 5th Street,
Greenville

17. Committee on Scientific Exhibits (7) III-5

Max P. Rogers, M.D., *Chairman*, 624 Quaker
Lane, High Point
William H. Boyce, M.D., Bowman Gray,
Winston-Salem
John A. Kirkland, M.D., Wilson Clinic,
Wilson
Wm. P. J. Peete, M.D., Duke Medical Cen-
ter, Durham
John H. E. Woltz, M.D., 1509 Elizabeth
Ave., Charlotte 4
Nathan A. Womack, M.D., UNC School of
Medicine, Chapel Hill
Vernon H. Youngblood, M.D., 609 Kan-
napolis Highway, Concord

**18. Committee on Eye Care and Eye Bank
(8) IV-2**

George T. Noel, M.D., *Chairman*, 211
Raleigh Building, Kannapolis
George M. Cooper, Jr., M.D., 2111 Clark
Avenue, Raleigh
L. Byerly Holt, M.D., 2240 Cloverdale Ave.,
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George A. Levi, M.D., P. O. Box 3364,
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Wm. D. Farmer, M.D., 1014 Professional
Village, Greensboro
Edward E. Moore, M.D., 706 Flatiron Bldg.,
Asheville
Carl N. Patterson, M.D., 1110 W. Main St.,
Durham

**19. Committee on Finance (3) (Plus 11 Con-
sultants) I-1**

Wayne J. Benton, M.D., *Chairman*, 2320
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W. Walton Kitchin, M.D., Sampson County
Memorial Hospital, Clinton
Consultants:
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Howard H. Bradshaw, M.D., Bowman Gray,
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Allyn B. Choate, M.D., 1012 Kings Drive,
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John W. Ormand, Sr., M.D., Box 397, Monroe

A. Hewitt Rose, Jr., M.D., 2009 Clark Ave., Raleigh

Edward W. Schoenheit, M.D., 46 Haywood St., Asheville

O. Norris Smith, M.D., 1019 Professional Village, Greensboro

John C. Tayloe, M.D., 120 Washington St., Washington

Heyward C. Thompson, M.D., Box 1202 Shelby

20. Committee on Grievances (5) (1st Five Past Presidents) VIII-0

Edward W. Schoenheit, M.D., *Chairman*, 46 Haywood St., Asheville

Claude B. Squires, M.D., *Secretary*, 225 Hawthorne Lane, Charlotte

Amos N. Johnson, M.D., Garland

John C. Reece, M.D., Grace Hospital, Morganton

Lenox D. Baker, M.D., Duke Hospital, Durham

21. Committee on Medical Golf Tournament (3) III-6

William A. Brewton, M.D., *Chairman*, P. O. Box 158, Enka

John B. Anderson, M.D., 215 Doctors Bldg., Asheville

John R. Hoskins, III, M.D., 203 Doctors Bldg., Asheville

22. Committee on Hospital and Professional Relations and Liaison to North Carolina Hospital Association (10) V-1

Theodore H. Mees, M.D., *Chairman* (5th), 501 W. 27th Street, Lumberton

Archie Y. Eagles, M.D. (1st), 407 Colony Ave., Ahoskie

W. T. Parrott, Jr., M.D. (2nd), 109 East Gordon St., Kinston

Milton S. Clark, M.D. (3rd), 401 Wachovia Bank Bldg., Goldsboro

Jack W. Wilkerson, M.D. (4th), Community Clinic, Stantonsburg

Thomas C. Worth, M.D. (6th), Rex Hospital, Raleigh

H. Lee Large, Jr., M.D. (7th), Presbyterian Hospital, Charlotte

Fred C. Hubbard, M.D. (8th), 408 8th St., N. Wilkesboro

Paul McN. Deaton, M.D. (9th), 766 Hartness Rd., Statesville

James S. Raper, M.D. (10th), Doctors Bldg., Asheville

23. Committee to Work with North Carolina Industrial Commission (7) II-6

Thomas B. Dameron, Jr., M.D., *Chairman*, 600 Wade Avenue, Raleigh

Ralph W. Coonrad, M.D., Broad & Englewood Sts., Durham

Thomas G. Thurston, M.D., 512 Mocksville Ave., Salisbury

Guy L. Odom, M.D., Duke Hospital, Durham

Malory A. Pittman, M.D., Wilson Clinic, Wilson

Richard McC. Taliaferro, M.D., 1018 Professional Village, Greensboro

Charles T. Wilkinson, M.D., 209 Wilkinson Bldg., Wake Forest

24. Committee on Insurance (8) IV-3

Joseph W. Hooper, Jr., M.D., *Chairman*, 410 N. 11th Street, Wilmington

Robert H. Brashear, Jr., M.D., N. C. Memorial Hospital, Chapel Hill

John C. Burwell, Jr., M.D., 1026 Professional Village, Greensboro

Barry F. Hawkins, M.D., Ardsley Road, Concord

Charles K. Padgett, M.D., 809 LaFayette St., Shelby

Kenneth A. Podger, M.D., 1200 Broad St., Durham

Robert E. Sandy, M.D., Doctors Clinic, Washington

S. Glenn Wilson, M.D., Box 158, Angier

25. Committee on Legislation (3 members plus President & Secretary) (10 Consultants) (12 Keymen Consultants)

Edgar T. Beddingfield, Jr., M.D., *Chairman*, Community Clinic, Stantonsburg

Hubert McN. Poteat, Jr., M.D., 713 Wilkins St., Smithfield

Donald B. Koonce, M.D., 418 N. 11th Street, Wilmington

John R. Kernodle, M.D., *President* (ex officio), Kernodle Clinic, Burlington

Charles W. Styron, M.D., *Secretary* (ex officio), 615 St. Mary's St., Raleigh

Division on State Legislation: (with consultants)

Edgar T. Beddingfield, Jr., M.D., *Chairman*, Community Clinic, Stantonsburg

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Samuel E. Warshauer, M.D. (3rd), 301 N. 10th Street, Wilmington

Thomas J. Taylor, M.D. (4th), 643 Roanoke Ave., Roanoke Rapids

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Thomas B. Dameron, Jr., M.D. (6th), 600 Wade Avenue, Raleigh

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Mark McD. Lindsey, M.D., Hamlet Hospital,
Hamlet

J. O. Williams, M.D., Cabarrus County Hos-
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Ave., Charlotte

Jesse Caldwell, M.D., 114 W. Third Ave.,
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T. S. Raiford, M.D., 103 Doctors Building,
Asheville

Division on Documentary Presentations

Hubert McN. Poteat, Jr., M.D., *Chairman*,
713 Wilkins Street, Smithfield

26. Committee on Mternal Health (14) VI-6

W. Joseph May, M.D., *Chairman & Secre-
tary* (8th), 121 Professional Building,
Winston-Salem

Wm. A. Hoggard, Jr., M.D. (1st) (1965),
1502 Carolina Ave., Elizabeth City

H. Fleming Fuller, M.D. (2nd) (1963), Kin-
ston Clinic, Kinston

Glenn E. Best, M.D. (3rd) (1966), Main St.,
Clinton

Milton S. Clark, M.D. (4th) (1967), Wa-
chovia Bank Bldg., Goldsboro

Hugh A. McAllister, M.D. (5th) (1965), 27th
at Barker St., Lumberton

P. J. McElrath, M.D. (6th) (1967), 500 St.
Mary's St., Raleigh

Jesse Caldwell, M.D. (7th) (1967), 114 West
Third St., Gastonia

Wm. R. Wellborn, Jr., M.D. (9th) (1964),
222 W. Union Street, Morganton

W. Otis Duck, M.D. (10th) (1963), Box 387,
Mars Hill

James F. Donnelly, M.D. (1966), State
Board of Health, Raleigh

Frank R. Lock, M.D. (BG) (1965), 300 S.
Hawthorne Rd., Winston-Salem

Roy T. Parker, M.D. (Duke) (1966), Box
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Robert A. Ross, M.D. (UNC) (1963), N. C.
Memorial Hospital, Chapel Hill

27. Medical-Legal Committee (8) V-3

Julius A. Howell, M.D., *Chairman*, Bowman
Gray, Winston-Salem

Theodore S. Raiford, M.D., 301 Doctors
Bldg., Asheville

David G. Welton, M.D., 1012 Kings Drive,
Charlotte

John W. Foster, M.D., Veterans Adminis-
tration, Winston-Salem

Connell G. Garrenton, M.D., Bethel Clinic,
Bethel

June U. Gunter, M.D., Watts Hospital,
Durham

Bennette B. Pool, M.D., 414 Nissen Bldg.,
Winston-Salem

Thomas A. Stokes, Jr., M.D., Brighton &
Mumford Rd., Durham

28. Committee on Medical Care Armed Forces Dependents ("MEDICARE") (15) (plus Subcommittee Consultants—19) II-7

David M. Cogdell, M.D., *Chairman*, 911 Hay
Street, Fayetteville

Everett I. Bugg, Jr., M.D., Broad & Engle-
wood Sts., Durham

Jesse Caldwell, M.D., 114 West Third St.,
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Samuel E. Warshauer, M.D., 301 N. 10th
Street, Wilmington

Daniel S. Currie, Jr., M.D., 111 Bradford
Ave., Fayetteville

A. Ledyard DeCamp, M.D., 1505 Elizabeth
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Powell G. Fox, Sr., M.D., 1110 Wake Forest
Rd., Raleigh

Charles Highsmith, M.D., Montgomery Me-
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William A. Farmer, M.D., 1617 Owen Drive,
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William Isaac Jones, M.D., 2914 Crosby
Street, Charlotte 7

Donald B. Koonce, M.D., 408 N. 11th St.,
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J. Douglas McRee, M.D., 2109 Clark Ave.,
Raleigh

Edwin L. Pierce, M.D., 1110 Wake Forest
Rd., Raleigh

George A. Watson, M.D., 306 S. Gregson St.,
Durham

John L. McCain, M.D., Wilson Clinic,
Wilson

A—GENERAL MEDICINE:

John L. McCain, M.D., *Chairman*, Wilson
Clinic, Wilson

W. R. Stafford, Jr., M.D., 948 Walker Ave.,
Greensboro

Leonard E. Fields, M.D., Box 788, Chapel
Hill

Joseph M. High, M.D., 415 Professional
Bldg., Raleigh

B—Radiology

James E. Hemphill, M. D., *Chairman*, Rich-
mond County Memorial Hospital, Rock-
ingham

Joe Lee Frank, Jr., M.D., Roanoke-Chowan
Hospital, Ahoskie

C—Surgery

Wayne H. Stockdale, M.D., *Chairman*, 703
North Street, Smithfield

Howard M. Ausherman, M.D., 200 Haw-
thorne Lane, Charlotte

Fred K. Garvey, M.D., Bowman Gray,
Winston-Salem

George R. Miller, M.D., 412 Realty Bldg.,
Gastonia

Guy L. Odom, M.D., Duke Hospital, Dur-
ham

C. F. Siewers, M.D., 1669 Owen Drive,
Fayetteville

Larry Turner, M.D., 1110 W. Main Street, Durham

Frank Edward Altany, M.D., 1012 Kings Drive, Charlotte

D—Obstetrics & Gynecology

John C. Burwell, Jr., M.D., *Chairman*, 1026 Professional Village, Greensboro

R. Vernon Jeter, M.D., Plymouth Clinic, Plymouth

Trogler F. Adkins, M.D., 306 S. Gregson St., Durham

E—Pediatrics

Dan P. Boyette, Jr., M.D., *Chairman*, 217 W. Main St., Ahoskie

Robert F. Poole, Jr., M.D., 817 Hillsboro St., Raleigh

George W. Kernodle, M.D., Medical Center Pharmacy Bldg., Burlington

29. Committee on Mental Health (17) VI-7

Allyn B. Choate, M.D., *Chairman*, 1012 Kings Drive, Charlotte

William E. Bellamy, Jr., M.D., State Hospital, Raleigh

Wilmer C. Betts, Jr., M.D., 2109 Clark Ave., Raleigh

E. W. Busse, M.D., Duke Hospital, Durham

Milton S. Clark, M.D., Wachovia Bank Bldg., Goldsboro

James F. Elliott, M.D., State Hospital, Butner

John W. Ervin, M.D., Box 132, State Hospital, Morganton

E. A. Hargrove, M.D., 10 S. McDowell St., Raleigh

John L. McCain, M.D., Wilson Clinic, Wilson

Mary Margaret McLeod, M.D., 114 South Gulf St., Sanford

Thomas T. Jones, M.D., 604 W. Chapel Hill St., Durham

Hans Howenbach, M.D., Duke Hospital, Durham

Phillip G. Nelson, M.D., 1211 Rock Spring Road, Greenville

Joseph J. Cutri, M.D., Bowman Gray, Winston-Salem

Walter A. Sikes, M.D., State Hospital, Raleigh

Joseph B. Stevens, M.D., 1017 Professional Village, Greensboro

David A. Young, M.D., 714 St. Mary's St., Raleigh

30. Committee on Necrology (3) IV-4

Charles H. Pugh, M.D., *Chairman*, Box 527, Gastonia

John W. Harbison, M.D., 911 Washington St., Shelby

Ben F. Royal, M.D., Box 628, Morehead City

31. Committee on Negotiations (3) IX-0

Wm. F. Hollister, M.D., *Chairman*, Moore County Hospital, Pinehurst (Term expires 1967)

Theodore S. Raiford, M.D., 301 Doctors Bldg., Asheville (Term expires 1963)

Hubert McN. Poteat, Jr., M.D., 713 Wilkins St., Smithfield (Term expires 1965)

32. Nominating Committee

Lenox D. Baker, M.D., *Chairman* (6th), Duke Hospital, Durham

William A. Hoggard, Jr., M.D. (1st), 1502 Carolina Ave., Elizabeth City

Clark Rodman, M.D. (2nd), 120 Washington St., Washington

Glenn E. Best, M.D. (3rd), Main Street, Clinton

A. H. Zealy, Jr., M.D. (4th), 206 N. Herman St., Goldsboro

Riley M. Jordan, M.D. (5th), 110 Campus Ave., Raeford

Wm. F. Eckbert, M.D. (7th), Box 317, Cramerton

Walter T. Tice, M.D. (8th), 624 Quaker Lane, High Point

Frank W. Jones, M.D. (9th), Catawba Hospital, Newton

John B. Anderson, M.D. (10th), 215 Doctors Bldg., Asheville

33. Committee of Physicians on Nursing (7) IV-5

Fred C. Hubbard, M.D., *Chairman*, 408 8th Street, N. Wilkesboro

Robert R. Cadmus, M.D., N. C. Memorial Hospital, Chapel Hill

Harry L. Brockmann, M.D., 624 Quaker Lane, High Point

John L. McCain, M.D., Wilson Clinic, Wilson

J. Samuel Holbrook, M.D., Davis Hospital, Statesville

David T. Tayloe, M.D., 209 N. Washington Street, Washington

Thomas J. Taylor, M.D., 643 Roanoke Ave., Roanoke Rapids

Committee on Nursing & Patient Care—

Subcommittee

John L. McCain, M.D., *Secretary*, Wilson Clinic, Wilson

34. Committee on Occupational Health (13) VI-8

John M. Hall, M.D., *Chairman*, West Main Street, Elkin

Harry L. Johnson, M.D., Box 530, Elkin

B. Joseph Christian, M.D., 948 Walker Ave., Greensboro

Mac Roy Gasque, M.D., Pisgah Forest

J. L. Fritz, M.D., Box 990, Asheboro

Clifton G. Payne, M.D., American Tobacco Co., Reidsville

James F. McMillan, M.D., 308 N. 3rd St., Wilmington

James Kent Rhodes, M.D., 307 Woodburn Road, Raleigh

William P. Richardson, M.D., N. C. Memorial Hospital, Box 758, Chapel Hill

Logan T. Robertson, M.D., 170 Woodfin St., Asheville

H. B. Underwood, M.D., 709 W. End Ave., Statesville

W. L. Wilson, M.D., State Board of Health, Raleigh

Benjamin W. Goodman, M.D., 12 Second Avenue, N. E., Hickory

35. Committee on Postgraduate Medical Study (9) IV-6

Theodore S. Raiford, M.D., *Chairman*, 103 Doctors Bldg., Asheville
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 Marvin N. Lymberis, M.D., 106 West 7th Street, Charlotte
 John L. McCain, M.D., Wilson Clinic, Wilson
 Frank R. Reynolds, M.D., 1613 Dock Street, Wilmington
 Wm. P. Richardson, M.D., N. C. Memorial Hospital, Chapel Hill
 Wm. H. Romm, M.D., Box 26, Moyock
 George R. C. Thompson, M.D., 407 Murchison Bldg., Wilmington

36. Committee on Poliomyelitis (7) VI-9

Samuel F. Ravenel, M.D., *Chairman*, 104 E. Northwood Street, Greensboro
 Charles R. Bugg, M.D., 627 W. Jones St., Raleigh
 Richard S. Kelly, M.D., 1606 Morganton Rd., Fayetteville
 Donald B. Koonce, M.D., 408 N. 11th St., Wilmington
 William A. Sams, M.D., Main St., Marshall
 Earle Spaugh, M.D., 1526 Harding Place, Charlotte
 Robert F. Young, M.D., Halifax County Health Dept., Halifax

37. Committee on Public Relations (3) (plus 8 consultants) V-4

David G. Welton, M.D., *Chairman* (7th), 1012 Kings Drive, Charlotte
 Courtney D. Egerton, M.D. (6th) (1963), 714 St. Mary's St., Raleigh
 (4th) (1962)

Ralph B. Garrison, M.D. (5th) (1964), P. O. Box 71, Hamlet

Consultants:

Glenn E. Best, M.D. (3rd), Main Street, Clinton
 John R. Bender, M.D. (8th), 1401 S. Hawthorne Road, Winston-Salem
 William H. Burch, M.D. (10th), Bat Cave
 William A. Hoggard, M.D. (1st), 1502 Carolina Avenue, Elizabeth City
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JULY, 1962

MEDPAC - AMPAC

President John Kernodle's first Message, in this issue, is most timely. While most doctors hesitate to take an active part in politics, it is vitally important now that they do so. The Kennedy administration's tremendous propaganda drive for the King-Anderson bill has stimulated more doctors than ever before to become interested in winning friends and influencing people to see the medical viewpoint.

One of the most effective ways to accomplish this is by supporting actively the North Carolina Political Action Committee (MEDPAC), affiliated with the national American Political Action Committee (AMPAC). Dr. Ed Bivens of Albemarle is chairman of MEDPAC. Dr. Ledyard DeCamp of Charlotte is secretary-treasurer. Directors are Drs. Donald Koonce, George Paschal, and John Reece. It is hardly necessary to say that these are all men of integrity and ability, whose leadership can be trusted.

All our members have had literature from both the state and national committees. It is to be hoped that they will become interested in their aims. The pressure for government control of medicine has been under

way for at least a quarter of a century, and has reached the greatest intensity under the present administration. It will be continued—and doctors may as well gird their loins for a long struggle. To paraphrase an old saying, now is the time for all good medical men to come to the aid of their friends in both federal and state governments.

For the benefit of some who may have failed to read the letter sent out by Dr. Bivens, and who wish to contribute or get further information, MEDPAC's mailing address is Box 4294, Charlotte 4.

* * *

THE HOMOSEXUAL PROBLEM

Since earliest history homosexuality has been recognized. Centuries ago it was quite respectable. Indeed, in Plato's famous *Symposium* on love, Socrates gave a homosexual attachment a higher rating than a heterosexual one: "And they are married by a far nearer tie and have a closer friendship than those who beget mortal children."

It is hard to know just when the practice of homosexuality began to fall into its present state of disrepute, and to know just how the genuine homosexual should be treated. In the *Canadian Medical Journal* for May 12, an anonymous homosexual male discusses his own case quite frankly, and gives the reader food for thought. He says that he began in early childhood to realize that he was attracted to members of his own sex, although he was quite normal in appearance.

...Where other boys were forming heterosexual relationships and going out to school dances, I never felt comfortable when I was expected to have physical contact with a girl. This was in spite of the fact that I had three sisters, had attended a coeducational school and felt at ease in feminine company. By the time I was 16 and in my final year at school, I was very much in love with one of the boys in the class but could not understand why, and was too ashamed to let him know. At that time, I didn't know that there were such people as homosexuals but had worked out in my mind that something had gone wrong in my development. I was having dreams about boys which were followed by emission, but this experience disturbed me so much that I trained myself to wake up in time to control and prevent ejaculation. I came to believe that although physically I was a male, emotionally I was a female, and many times felt

ashamed to the point of considering suicide.

The writer, who is evidently quite intelligent and well educated, tells how he sought help from a psychiatrist, but found none. A psychoanalyst would not accept him as a patient because he could not pay his fees. A psychologist whom he consulted advised him to "accept myself and live with homosexuality."

After three years of teaching school he joined the Air Force and made a good record until an affair with another homosexual was discovered and he was discharged.

Evidently—and understandably—he is embittered, for he sees no hope for happiness. His conclusion is well worth pondering, though he does not answer his own question:

Where does this lead me? I don't know. With the law as it stands, it can only lead to a constant fear of being found out and imprisoned; or to a very lonely existence made lonelier by the knowledge that there are thousands like me forced to suppress, reject and feel guilty about emotions that we had no part in creating and have not power to direct. We can control our overt behaviour but it makes us less human and there does not seem to be any good reason why this should be necessary except that "it's against the law". The only conclusion to which such reasoning leads me is that it is wrong because it is against the law, and it is against the law because it is wrong.

This problem, which so often confronts physicians and psychiatrists, is a cause of much unhappiness. Most workers admit that their knowledge of the problem is meagre, so is it not time to rescue it from the morass of Victorian taboo? It has not been the aim of this article to criticize the medical and other professional workers in the field of mental illness, for whom I have the highest regard, but to draw the attention of the profession to the problem through personal testimony. Progress can only come after all concerned discuss it freely, so that a more enlightened view can be achieved. Continued study directed toward revision of existing laws and education, to disperse the general prejudice against the publication of authoritative information, may stimulate much-needed research into the nature and causes of homosexuality. The amount of human suffering caused by this affliction certainly warrants the undertaking of extensive research. Given freedom, there are many who would gladly work to help others similarly afflicted.

President's Message

PARTICIPATION OF PHYSICIANS IN POLITICS

For ages the image of the physician has been held in high favor by most people and considered by many as outstanding. The physician has occupied a highly respected position as a leader in the community. With their sights focused primarily on the care of the sick and prevention of disease within the community, however, the vast majority of physicians have unintentionally failed to take part in administrative and political programs.

We now hope that we are not too late to prevent the complete engulfment of this age-old profession by those of socialistic thoughts and desires. During the past few years it has been necessary for doctors to participate more and more in the areas of politics. In fact, we now plan to develop a well organized program on the local, state, and national level. Our prime intention is to help educate the people about the health problems being discussed and fought over in our General Assembly and national legislative bodies.

For years we have had an occasional candidate from the medical profession for offices in these areas. Because of marked activity in the area of compulsory health insurance on the national level, as well as on some state levels, during the last two decades, more doctors have become interested in politics. Now, with the federal government and administrative offices spending much of their time, effort and the public monies in trying to promote their schemes for medical care for the aged, the physician has become more concerned with various phases of politics. We desire to increase the participation of our members on the precinct level with moral, financial and personal assistance to desirable candidates for political office.

With this emphasis on increased participation in political affairs, numerous physicians will become candidates for the varying jobs. This doesn't necessarily mean that we can start at the top of the political lad-

der; in fact, we should first "walk before running," by participating and helping at the precinct level in forming a strong interest and effort, thus moving ahead through all echelons of the party system on the precinct, county, state and national level. We are now organizing our members to take more interest in political movements, whereas in the past we have spent most of our time in meeting health needs and forgetting these vital areas of political action. The Honorable Jim Farley has advocated development of a strong "grass-root" organization. That is what we plan to organize through stimulation of our members.

Educational Program

In addition to our desire to be seen, heard and felt, locally and statewide, we also plan to assist candidates in learning and understanding our views on the fundamentals of health care. It is the goal of the medical profession to help educate the voting public as to the various issues at hand. In carrying out this educational program, assistance will come from our medical societies, and also from our wives, through the Auxiliary. In the future you will hear much of our local educational program, as we try to bring to you messages that will benefit everyone.

A North Carolina Political Action Committee made up of prominent doctors throughout the state who have held offices and committee chairmanships in our state organization is now operating. This group will be coordinated with the American Political Action Committee (AMPAC), and both will bring assistance to the area where help is most needed.

Again, both the national and the state organizations will function primarily as educational bodies. There will be research for obtaining factual data on subjects of prime interest. These data will be used by citizens and candidates in the various state political districts. Funds will also be made available for financial contributions to candidates with the proper thoughts on all measures of

vital importance, including quality health care.

A Word of Thanks

During the past year committees of doctors have been organized on county and regional levels. They have done research in the area of health care for the aged. Their findings have been disseminated to the public and to our Congressmen. Our hopes are high for continued expression by these groups on matters of importance to the continuation of quality medicine, and also on any other programs that will help maintain a free and progressive democratic society.

I, personally, take this opportunity to thank those of our members who went at their own expense to Washington on June 6 for a visit and luncheon with our Senators and Congressmen. I also thank the legislators for the wonderful reception of our contingency, and for the frank and understanding discussions which took place during the luncheon. We are pleased with the conservative attitudes and the objections voiced to the King-Anderson proposal, and especially to opposition to the use of the Social Security mechanism for financing medical care for the aged. I am sure that this movement has improved our rapport and that future meetings will be forthcoming.

This action to stimulate our members to participate in politics is just another part of our over-all effort to increase the time spent by every doctor in various community activities. The doctors will learn to become joiners, participants and benefactors to the community and the political programs on the local (grass-root) level.

JOHN ROBERT KERNODLE, M.D.

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Appointment of Dr. David Frost as assistant director for health and medical activities in the Office of Vocational Rehabilitation, has been announced by OVR Director Mary E. Switzer.

Dr. Frost comes to Washington directly from the OVR regional office in San Francisco, where he has been Associate Regional Representative for Health and Medical Activities since 1957.

Committees & Organizations

THE INTERPROFESSIONAL CODE

With the increasing frequency of litigation requiring medical testimony, cooperation between physicians and attorneys is essential in fulfilling their professional obligations to patient and client in the administration of justice.

The legal and medical professions in North Carolina pioneered in formulating and adopting an Interprofessional Code. In 1955 Dr. J. P. Rousseau, then president of the Medical Society of the State of North Carolina, became interested in strengthening interprofessional relations. As a result a joint committee was formed for the purpose of studying the problem and formulating a code for the State of North Carolina. The first Interprofessional Code of North Carolina was approved and adopted by the Medical Society and the North Carolina Bar Association in 1956.

Credit is due to the drafters of the first Interprofessional Code for North Carolina. The physician members of this committee were: T. S. Raiford, chairman; Thomas W. Baker, R. L. Garrard, John F. Owen, K. B. Pace, and Bennette B. Poole. The attorney members were: Kester Walton, chairman; Fred Folger, Joseph C. Moore, Jr., Armistead Sapp, John Small, and Frank E. Winslow.

In order that the North Carolina Interprofessional Code might more nearly conform to the code adopted in 1958 at the national level by the American Bar Association and the American Medical Association, and in order to implement that code as it relates to the practice of these two professions in North Carolina, this revised code has been formulated and adopted by the respective professions. The General Principles set forth are in accord with the National Interprofessional Code. The COMMENTARY clarifies and explains the ethical and practical application of the General Principles.

Adopted by the Joint Interprofessional Code Committee of the Medical Society of the State of North Carolina and the North Carolina Bar Association.

GENERAL PRINCIPLES

1. THE PHYSICIAN-PATIENT RELATION:

The attending physician should recognize that as a part of his professional responsibility he should co-operate with his patient and the patient's attorney.

2. THE ATTORNEY-CLIENT RELATION:

The attorney, within ethical bounds, should seek to present his client's claim of rights in the most favorable light possible.

3. COMPENSATION OF PHYSICIANS:

The physician is entitled to reasonable compensation for time and effort in matters related to litigation.

4. RESPONSIBILITY FOR MEDICAL FEES:

The attorney should do everything possible to assure payment for services rendered by the physician for the attorney or his client.

5. MEDICAL REPORTS:

The physician upon proper authorization should promptly furnish a complete medical report. The attorney should give the physician a timely request for a medical report and clearly specify the medical information needed.

6. CONFERENCES:

In order to present fairly and adequately the medical information involved in any legal controversy the physician and attorney should confer and prepare well in advance.

7. SUBPOENAS FOR MEDICAL WITNESSES:

When a medical witness is placed under subpoena, he should be given adequate notice and should then comply properly with such requirement.

8. COURT APPEARANCES:

Subject to the requirements of the Court all reasonable effort should be made to conserve the time of the physician in attending as a witness.

9. THE PHYSICIANS AS A WITNESS:

The attorney and the physician should treat one another with courtesy and respect and the physician should testify solely as to the medical facts and in an objective manner.

COMMENTARY

1. *The Physician-Patient Relation:*

The attending physician should recognize that as a part of his professional responsibility

he should cooperate with his patient and with the patient's attorney in the patient's effort to recover compensation which may be due him. Such cooperation requires that the physician promptly furnish the patient's attorney with the medical facts and data pertinent to the case. The physician should accept the responsibility of explaining the medical facts in such a manner that the attorney understands them and can determine their relationship to his client's cause. There should be complete cooperation between the physician and the attorney, each assuming his proper responsibility.

It is for the physician to determine the actuality or probability of fact pertaining to his patient's condition. It is for the attorney to determine how and under what circumstances such facts are to be appropriately presented.

Medical facts may be intricate and difficult to understand. In such circumstances the physician should provide the attorney with a written summary for his study. The physician should carefully preserve his own original records, although with express written consent of his patient, permit their physical inspection by, or making a copy of relevant portions available to, his patient's attorney.

The physician should never advise on the amount of compensation a patient should seek to recover. The proper province of his professional advice is the extent, degree, or percentage of illness, injury, disability, or similar judgments based upon his professional knowledge of the case. He is not expected to understand technical rules of legal liability, of evidence, or of trial techniques. The latter are properly within the province of the attorney.

2. *The Attorney-Client Relation:*

An attorney may not ethically maintain or institute any suit or proceeding which shall appear to him to be unjust, or any defense, except such as he believes to be honestly debatable under the law of the land. An attorney will employ, for the purpose of maintaining the causes confided to him, such means only as are consistent with truth and honor and will never seek to mis-

lead the judge or jury by any artifice or false statement of law or fact.

In the discharge of his duty it becomes the attorney's responsibility to marshal the facts and to obtain professional and other opinions which, in his judgment, are necessary for his client's case and in a manner consistent with the ethics of his profession.

It is important that the physicians understand that legal proceedings in this country are conducted under what is known as the "adversary system." Under this system the attorney occupies a dual position; he is an officer of the Court as well as the single-minded advocate for his client. He does not and cannot properly represent both sides to a dispute.

This system of jurisprudence has developed in recognition of the truth demonstrated countless times that justice is more often accomplished if the two or more contestants can present their points of view to some neutral third person (usually a jury) who can weigh the opposing claims. Such claims are usually presented in the form of testimony which is offered in question and answer form. The judge, the jury, or the presiding officer of an administrative tribunal is the referee who weighs the opposing points of view and the conflicts in testimony. In a sense the judge or administrative officer much more nearly approximates the physician in objectivity. The physician well knows, however, that in some situations it is also possible for medical men to vary honestly and sincerely in their physical findings, their treatment, and their evaluation of illness or injury.

3. *Compensation for Services of Physicians:*

Although the medical profession has long accepted the responsibility to attend those in need of its services without regard to ability to pay, physicians are entitled to reasonable compensation in keeping with professional responsibility and the time required.

"Reasonable compensation" should include consideration of time spent by the physician in conferences, preparation of required or requested reports, travel costs, and court or other appearances. The attorney

must do his full part in explaining such fact to his client.

It is proper and not unusual for an attorney to represent on a contingent fee basis a client who is not in a position to pay a fixed fee irrespective of the outcome of the case. The charges of a physician should not in any way be based upon a percentage of the patient's financial recovery. Any such practice might lead to a charge that the physician witness is biased in his testimony.

4. *Direct Payment of Medical Fees by the Attorney:*

An attorney under his canons of ethics cannot stir up strife or litigation, and neither can he reward those who may persuade others to seek his service. This standard presents every practicing attorney with difficult questions. Is he permitted, for example, to advance costs of litigation on behalf of his client? He may do so ethically where such advances constitute a charge to the client, and their collectibility is not contingent upon the outcome of the case.

The attorney may, on behalf of his client and as a charge to him, pay the physician for such services as are related to the development of his client's legal rights. A specific understanding should be reached between the attorney and the doctor as to each individual case, and no common pattern or practice is susceptible of a general statement.

The physician may have good reason to ask that the attorney arrange to pay such bill direct. The attorney asks the physician to give substantial amounts of time in preparation for a case and to prepare detailed reports to an extent seldom known to the patient, and often when the patient is not in a position to understand either their necessity or their significance. It is the attorney's responsibility to explain these matters to his client, as they are related to the establishment of his legal rights rather than to his medical care.

B. *Co-operation to Assure Physician reasonable Compensation:*

Misunderstanding between the two professions sometimes arises in those matters

in which it appears that the attorney makes no effort to assure the physician of receiving reasonable compensation.

The physician should be aware that attorneys are not permitted to assume personal responsibility for such expenses in litigation matters and can only advance expenses of which refund by the client is reasonably to be expected.

Where an attorney requests a report as to the condition of his client or arranges for an examination of a client or an adverse claimant, the arrangements should include an agreement as to compensation for the examination and report.

If an attorney desires to confer with a physician as to a client's condition in preparation for filing claim or preparing for trial, the arrangements for such conference should include an agreement covering the compensation of the physician for the time required and the professional knowledge involved.

Where an attorney requests a physician to appear as a witness in any hearing or trial, the responsibility for and the amount of compensation should be discussed and agreed upon in advance. Agreement should be reached as to the application of expert witness fees allowed by the court.

If the attorney is unable to assure the physician that the client can and will make prompt and proper payment of compensation for professional service, the attorney should frankly declare to the physician the inability of the client to meet such obligation and appeal to the professional responsibility of the physician to make available needed service in the full knowledge that compensation may not be forthcoming.

The physician is within his rights in requiring that satisfactory arrangement be made for the payment of reasonable compensation for his services, but this right may be waived when he is satisfied that the person requiring such professional service is unable to make payment.

In cases where the attorney causes the physician to appear as an expert witness in any legal proceeding, the attorney should take such action as may be appropriate to have the court allow proper compensation

for the physician in keeping with his qualifications.

5. *Medical Reports:*

Generally, the first contact between an attorney and a physician in regard to a patient-client's claim for personal injury will arise shortly after the first conference between the attorney and his client. One of the first problems of the attorney is to determine the nature and extent of his client's injuries, the client's present condition, and the prognosis, and particularly whether there will be permanent injuries. The only reliable source from which the attorney has to obtain this information is his client's physician. The attorney should immediately obtain from his client a written authorization addressed to the physician, authorizing the physician to divulge to the attorney full medical reports, and no information should be furnished by the physician to the attorney or any other person without written authorization. When requesting information, the attorney should enclose the authorization and should specify the general nature of the information which he desires.

Physicians should appreciate that promptness in providing a patient's attorney with such information as may be available is of importance to the patient's legal rights. Many matters can be settled out of court to the mutual satisfaction of the parties involved. Undue delays in providing medical reports, bearing on a patient's legal rights, may prejudice the patient's opportunity, either as to settlement or disposition of the problem. The delay may possibly create further expense, worry, and even the loss of important testimony. Witnesses may die or facts may become obscure as time elapses.

As a minimum, a physician's report to his patient's attorney should include the following:

- a. History as related by patient
- b. Examination
- c. Diagnosis
- d. Treatment
- e. Progress and prognosis

6. *Conferences:*

Based upon the medical report furnished to him the attorney may be able to work

out a settlement of the case and obviate the necessity of the physician ever having to appear in court. If settlement cannot be obtained and it appears that a trial will become necessary, the physician and the attorney in the interest of their patient-client should confer relative to the common problems presented in a particular case. Such conferences should be arranged in advance of court or other hearing at a time mutually convenient to each, in full appreciation that to each profession, time is of the utmost importance. Neither the physician nor the attorney should be required to spend unnecessary time in arranging or attending such a conference. The report previously furnished to the attorney by the physician should afford the working basis for the conference, and save both parties considerable time in the conference. The physician should feel obligated to point out anything which he believes to be helpful in presenting the patient's case, as well as a weakness in opposing medical theories or testimony.

It is unfair to the patient-client, the physician, the attorney, and the cause of justice to present a medical witness who has not first conferred with the attorney, and who, therefore, may lack a full appreciation of the significance to the case of the particular matters about which he is being asked to testify. It is equally obvious that the attorney is less able to represent the full interest of his client when he has not had the advantage of full conferences with the physician in advance of presenting the case.

7. Subpoenas for Medical Witnesses

Because of the necessity for protecting his client and himself, the attorney is required to subpoena the physician as a witness. Although the physician should not take offense at being subpoenaed, the attorney should not cause the subpoena to be issued without prior notification to the physician. The duty of the physician is the same as that of any other person to respond to judicial process. Where the physician is willing to come into Court he can accept service, and this may be preferable. The attorney owes it to his client to issue the

subpoena and have it served or accepted. The subpoena also protects the doctor from possible embarrassment on cross-examination if he is questioned as to why he is in Court. He can then state that he is in Court in response to a subpoena. Furthermore, the subpoena affords a basis for a subsequent order by the Court to allow the physician an expert witness fee.

There are situations in which the attorney subpoenas the medical expert, over the physician's objections, either because the physician has been uncooperative or the attorney has thought him so, or the physician has said, for example, that he does not wish to testify, or that he has no opinion. This presents complications from the standpoint of the physician. There is no question of the obligation of the physician to obey a subpoena, except where grave emergency prevents his doing so. An emergency can never be a matter of mere convenience to the physician. It must always involve the genuine professional needs of a patient, and the physician assumes the risk of convincing the Court that the emergency was of sufficient gravity to justify his ignoring the order of the Court.

The most obvious complications presented by such a subpoena are: first, it is unlikely to take the demands of the physician's practice or his professional convenience into account; second, the physician is frequently not given enough time to prepare to respond to a subpoena; third, the compensation which accompanies a subpoena is normal and does not reflect the reasonable value of the professional services involved in preparing or offering court testimony, or the time taken away from a physician's practice.

No medical expert can be compelled to form an opinion, although he may be required to state the substance of his observations if he observed the patient. If he does not have a professionally adequate basis for an opinion as to a particular litigant whom he did not observe, he cannot be compelled to offer an opinion before a court or administrative body. If he has an opinion he is obliged to state it.

If an attorney is insistent that a medical

expert offer an opinion under these circumstances, the physician should be careful to state for the record that he has been subpoenaed, that he has not observed the patient, if such is the case, and that he has an insufficient basis upon which to form a professional opinion.

When a physician who has not observed a particular individual is subpoenaed as a medical expert, he will be confronted with the problem of the hypothetical question. If he can answer that question, he must do so. If he cannot answer it without special study or if the question does not contain sufficient facts upon which to form an answer, he should so state.

8. *Court Appearances:*

Attorneys should recognize that an appearance in Court interrupts the doctor's office routine and for that reason attorneys should not require doctors to come in Court and sit for long periods of time waiting to be put on the witness stand. It is imperative that the attorney give the doctor as much advance notice as is reasonably possible, so that the doctor may arrange his professional affairs and patient schedules accordingly. As a practical matter, the physician should be alerted by telephone a reasonable time before he will actually be needed in Court. The physician should notify the attorney of his presence in Court. The physician is obligated to be in Court at the time requested. Timing is not only important for the orderly and advantageous presentation of the case, but also for the convenience of the Court, other witnesses, the jury, the attorneys and other litigants. Courts and attorneys must also recognize that the physician has continuing and often unpredictable responsibilities to his patients. In such instances, courtroom procedure must give way to humanitarian considerations and the physician be permitted to testify "out of turn" or at another time. When an emergency arises which calls for the services of a physician witness, judges and attorneys should immediately release such witness or postpone his appearance until the emergency has passed.

9. *The Physician as a Witness:*

(a) *Choice of Language by Medical Witness:*

A medical witness testifying before an administrative body, such as an industrial commission, may ordinarily use technical language with relative freedom and confidence. The reason for this is that such bodies become relatively expert in the understanding of medical terminology. This is true, in varying measure, of judges. It is not true, however, of a jury. It is possible for medical testimony to be so technically worded that its meaning is entirely lost upon a jury, or is so completely misunderstood that the jury reaches an erroneous conclusion. When this situation occurs, it may be the fault of either or both the physician and the attorney.

To make his professional testimony clear, a medical witness should first express his findings and opinion in medical terms. He should then translate these terms as accurately as possible into language intelligible to the court, attorneys, and the jury. He should also put into intelligible language the effect of particular injuries. The latter is frequently easier than the technical statement of a diagnosis or of the treatment rendered.

The medical witness should remember that his testimony is intended solely to explain the medical facts to the Court. If it does not explain and does not clarify the issues of a particular case, it has failed to be useful in the determination of the case.

(b) *The Physician on the Witness Stand:*

The physician is a witness and as such he should not assume the role of an advocate. The attorney serves in that capacity. Counsel should not engage in examination of the physician as a hostile witness but as a provider of facts. The physician should show respect and consideration to the court and to the attorneys. The courts and attorneys owe the same obligation to the physician.

When the physician is of the opinion that an important medical fact has been omitted or underestimated, he should, upon leaving the stand, make this known to the attorney

who called him. If the attorney has overlooked an important fact he can then recall the physician for further testimony or take such other action as he deems appropriate.

(c) *The Problem of Conflicting Medical Evidence:*

One of the most common criticisms of medical testimony arises from conflicts between the testimony of two or more physicians with reference to the same case. Physicians are themselves critical of this situation under some circumstances. It is an extremely troublesome matter and one which may be partially solved by the observance of several principles, largely within the control of each of the professions.

The first is that an attorney can reduce the area of misunderstanding, out of which conflicting testimony frequently comes, by thorough preparation of his case, by a careful use of words, and by a carefully worked out purpose in having certain testimony offered. The second is that the physician can and should explain that medicine is as much an art as it is a science; that in many situations alternative treatments are available, any one of which may be appropriate; that judgment values are not exact but, at best, fall within rather substantial ranges; that certain risks attend a given procedure; that some cases will not have a successful outcome; that many diagnoses are limited by the subjectivity of the symptoms and are complicated by the mental outlook of patients; and finally, that diagnosis and treatment must both be evaluated as of the time they occurred rather than in the light of a later days.

(d) *Expert Testimony:*

The attorney should understand that in a very real sense, and one recognized by law, every physician is relatively "expert" in the field of medical testimony. The thoroughness and high quality of his training entitles him to this status as does his unlimited license. There is another degree of expertness, recognized alike by courts and the profession, which comes with specialized training

and experience in a particular branch of medical science. It is in this latter sense that the term "medical expert" is more commonly understood and used.

An expert medical witness may or may not have treated the patient. He may or may not have examined the patient. The testimony of an expert must in part depend, then, on the facts of his relationship to the particular patient. His testimony, if he has not treated the patient, cannot be expected to be the same as if he had treated the patient. Expert testimony will be still more limited if the physician, even though an acknowledged expert, has never examined the patient but has been limited to x-rays, observation in Court, the reports of other physicians, or to hypothetical questions.

The attorney should take into account the difference between these situations and should not expect a medical expert to offer opinion evidence which exceeds the factual relationship of such expert to the patient, or which exceeds the facts contained within hypothetical questions put to him as the basis for his opinion.

It is highly important that the attorney and the medical expert confer prior to trial and more particularly as to hypothetical questions to be presented. The doctor should suggest to counsel what facts are necessary in framing such hypothetical questions to afford him the basis upon which to form and express a medical opinion. The attorney then is in a position to see that such facts are developed by the evidence prior to placing the expert on the stand and presenting the hypothetical question.

(e) *Statements by Physicians:*

Attorneys are under ethical obligations not to handle both sides of a case and to deal with adverse parties only through the latter's attorneys. The physician may not be trained to understand the principle of adverse interest. However, the physician is well aware that his ethical principles and the concept of privileged communication prohibit his divulging information to anyone concerning his patients without the written authorization of his patient or by direction of the court.

When a physician who has agreed to offer testimony in a case is approached by persons other than his patient or his patient's attorney, he should be frank about his prior commitments and ethical restrictions, notify the party for whom he has agreed to testify and thereafter be guided by the advice of the latter's attorney.

(f) *Ethical Limits of Medical Testimony*

A physician should not indulge in speculation unless the case unavoidably requires such indulgence and in such situation he should clearly label his testimony as his "best estimate" or best judgment. Normally a physician who has treated a patient should testify as to the facts of his diagnosis, his treatment and his prognosis honestly and simply. When testifying as an expert, the physician should offer no opinion beyond the facts of the case or which is not otherwise in the court record or which goes beyond his professional knowledge or runs counter to his professional training and judgment. His professional judgment and his conscience must mark the limits of his testimony, including his opinions.

(g) *Efforts by Attorney to Influence Medical Testimony:*

It is highly improper for an attorney to seek to color the professional opinion of a physician. He may point out the kind of medical evidence he needs to establish his case and the reasons for it, but this does not permit him to attempt to shape the physician's testimony. Improperly presented medical testimony is professionally unworthy of both the physician and the attorney.

No attorney is justified in abusing, badgering or browbeating a physician. Such actions are beneath the dignity of the attorney and are in violation of the dignity of the physician. The established rules of evidence give ample opportunity for testing the competency or credibility of a medical witness and make unnecessary and unjustifiable resort to any of the above devices on the part of the cross-examining attorney.

Judges should not tolerate such tactics, but where they do not act promptly, the

physician should inquire of the judge whether he is to submit to such treatment. Rarely will a judge fail to restore the trial to a proper level after such request is made.

Bulletin Board

COMING MEETINGS

New Hanover County Medical Symposium—Wilmington, July 28.

American College of Obstetricians and Gynecologists, District IV—Barringer Hotel, Charlotte, October 4-6.

Mecklenburg Academy of General Practice—Charlotte, October 10-11.

Forsyth County Heart Symposium—Winston-Salem, October 12.

North Carolina Academy of General Practice, Annual Meeting—Jack Tar Hotel, Durham, October 31 - November 2.

North Carolina Pediatrics Society, Annual Meeting—Sedgefield Inn, Greensboro, November 9-10.

American Association of Obstetricians and Gynecologists — Hot Springs, Virginia, September 6-8.

International Congress of Dermatology—Washington, D. C., September 9-15.

American Hospital Association, Annual Meeting—Chicago, September 17-20.

Interstate Postgraduate Medical Association, Scientific Assembly—Chicago, October 1-4.

American Medical Association, National Congress on Mental Illness and Health — Palmer House, Chicago, October 4-6.

American Society of Oral Surgeons, Annual Meeting—New Orleans, October 24-27.

NEW MEMBERS OF THE STATE SOCIETY

The following physicians joined the Medical Society of the State of North Carolina during the month of May, 1962.

Dr. Angus Gerard Sargeant, 2060 Gordon Road, Greensboro; Dr. Norman R. Sloop, 924 Statesville Road, Salisbury; Dr. Kell Holler, Rowan County Health Department, Faith; Dr. Dean C. Jones, Jr., 111 Jolly Street, Louisburg; Dr. J. Doyle Medders, 128 Person Circle, Louisburg; Dr. Carey J. Perry, Jolly Street, Louisburg; Dr. Frank J. Montrose, 186 Hamilton Road, Chapel Hill; Dr. Clayton Eugene Wheeler, N. C. Memorial Hospital Chapel Hill; Dr. Willard E. Lee, Wilson County Mental Health Clinic, Wilson; Dr. Serhij Sochocky, Eastern North Carolina Sanatorium, Wilson; Dr. Robert Galloway Moseley, Box 3205, Duke Hospital, Durham.

NEWS NOTES FROM THE DUKE UNIVERSITY MEDICAL CENTER

Dr. Barnes Woodhall, dean of the Duke University School of Medicine, was chosen president-elect of the Harvey Cushing Society during the organization's annual meeting in Chicago.

Professor of neurosurgery at Duke as well as Medical School dean, Dr. Woodhall will succeed Dr. David L. Reeves of Santa Barbara, California, to the presidency next year.

The society, founded in memory of the famed brain surgeon Dr. Harvey Cushing of Johns Hopkins and Harvard Universities, has 1,000 active members throughout the United States and Canada, and associate members over the entire world.

Dr. Woodhall has been a member of the executive committee of the society and chairman of the editorial board of the society's publication, the *Journal of Neurosurgery*.

* * *

Duke University Medical Center surgeon Lenox D. Baker has been named president-elect of the American Orthopaedic Association.

Dr. Baker was elected during the Association's seventy-fifth annual meeting in Bermuda. He will take office a year from now, succeeding Dr. George Eggers of the University of Texas Medical Center, Galveston.

In 1964, Dr. Baker will preside over a special international meeting of the Association in Vancouver, British Columbia, Canada. This meeting will be attended by orthopaedic surgeons from all English-speaking countries.

* * *

Dr. Nicholas G. Georgiade of the Duke University Medical Center has assumed the presidency of the American Society of Maxillofacial Surgeons for 1962-63.

Succeeding Dr. Orion Stuteville of Northwestern University, Dr. Georgiade moved from vice-president to president during the Society's 1962 meeting in Montreal, Canada.

* * *

Establishment of an annual lecture series honoring Dr. Deryl Hart, president of Duke University and a key figure in the development of the Duke Medical Center, was announced recently.

The first lecture in the series was given May 22, by Dr. Charles G. Rob, chairman of the Department of Surgery at the University of Rochester Medical Center, and president of the International Society of Cardiovascular Surgery.

The Deryl Hart Lectureship was established through the gift of a surgeon who took his residency training at Duke when Dr. Hart was chairman of the surgery department. Purpose of the lectureship is to bring an outstanding surgeon to Duke each year to serve for several days as a visiting professor and to deliver a formal lecture.

Preparations are being made at Duke University to protect the entire 25,000-member university community from radioactive fallout.

Initiated last summer by Duke Medical School Dean Barnes Woodhall, the University's fallout plan is based on effective use of shelter facilities already in existence.

* * *

The Duke University Medical Center's educational television team played a major role in the annual meeting of the Council on Medical Television held recently at the National Institutes of Health, Bethesda, Maryland.

Dr. Joseph E. Markee, chairman of the Department of Anatomy and head of closed circuit TV teaching activities, was installed as chairman of the council. He will serve for one year, succeeding Dr. John Huber of the Temple University Medical School.

Members of the Duke TV team attending the council meeting with Dr. Markee were Sam A. Agnello, director-coordinator; and Dr. Fred D. McFalls, artist-cameraman.

The group presented an exhibit and a report on the use of TV in medical teaching at Duke, and Dr. Markee participated in a panel on televised quizzes for medical students.

* * *

A new program to train public school teachers for work with hospitalized children has been initiated by the Duke University Medical Center and the University of North Carolina's School of Education.

Five teachers from North Carolina and other states are currently enrolled in the program, which provides experience and instruction needed for in-hospital teaching.

NEWS NOTES FROM THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE

The School of Medicine of the University of North Carolina is expanding its program of medical education and service to the state by the creation of a new Department of Hospital Administration which became effective July 1.

Dr. Robert R. Cadmus, now director of N. C. Memorial Hospital and professor of hospital administration, is chairman of the new department. In addition to his new duties, he has assumed the position of consulting director of the hospital.

Eugene B. Crawford Jr., currently associate director, succeeds Dr. Cadmus as director of the hospital. Crawford will hold an academic position as assistant professor in the Department of Hospital Administration.

Dr. W. Reece Berryhill, dean of the School of Medicine, states that the new Department of Hospital Administration will serve in the three important areas of teaching, hospital administration research, and service to hospitals and health agencies throughout North Carolina. Much of this program is currently carried out on a part-time

basis, but the forthcoming changes will permit Dr. Cadmus to devote full time to the many new and developmental activities in this expanding field.

* * *

Faculty promotions, new appointments, and faculty changes at the University of North Carolina School of Medicine were announced recently by University Chancellor William B. Aycock with the approval of Consolidated University President William C. Friday and the Board of Trustees.

Hans Strupp, Ph.D., promoted from associate professor to professor of psychology in the Department of Psychiatry as of April 1 of this year.

Francis De Witt Pepper, Jr., M.D., has been appointed as an instructor in radiology for the academic year, 1962-1963.

Dr. Louis G. Welt was granted a year's leave of absence, beginning in September, to work with Dr. James Wyngaarden of Duke University. Dr. Welt is professor of medicine in the School of Medicine.

Dr. Ernest H. Wood was granted a year's leave of absence, beginning in September, to study at St. George Hospital Medical School in London. Dr. Wood is professor of radiology in the School of Medicine.

* * *

The Coker Award, given annually by the Elisha Mitchell Scientific Society, has been presented to William R. Bibb of Salisbury.

The award, a cash grant and a certificate, is presented each year on the basis of dissertations entered by students who are candidates for doctor's degrees in some field of science.

Among the new officers of the society elected for the coming year are Dr. William S. Pollitzer, Department of Anatomy, U.N.C. School of Medicine, secretary-treasurer.

* * *

Mrs. Compton Shelton has recently assumed the position of play therapist at Memorial Hospital of the University of North Carolina.

Mrs. Shelton works closely with all of the hospital staff who are concerned with young patients, which includes doctors, nurses, dietitians, physical therapists, and others connected with the treatment program for children.

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The annual initiation, banquet and presidential address of the University of North Carolina chapter of the Society of the Sigma Xi, honor organization of scientists in natural biological and physical sciences, was held May 18 on the University campus.

Dr. J. Logan Irvin, Sigma Xi president, delivered the presidential address. Dr. Irvin is professor and chairman of the Department of Biochemistry.

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Dr. Charles E. Flowers, Jr., professor of obstetrics and gynecology of the School of Medicine,

was the United Cerebral Palsy Lecturer at the annual meeting of the Texas Medical Society in Austin May 14-16.

He presented two lectures—"The Obstetrician's Responsibility in the Prevention of Cerebral Palsy" and "Patient Participation in Labor and Delivery."

Dr. Flowers is president of United Cerebral Palsy of North Carolina and a member of the National Board of Directors of United Cerebral Palsy.

* * *

The University of North Carolina's Social Research Section, Division of Health Affairs, has been awarded a five-year renewal grant of \$290,000 by the National Institutes of Health for its Mental Health Training Program. The Social Research Section is sponsored jointly by the Division of Health Affairs and the Institute for Research in Social Science.

The collaboration of the Department of Psychiatry, University of North Carolina, and the co-operation of the units of the North Carolina Hospital System have been especially important in the development of the Mental Health Training Program. Projects have been developed in the psychiatric service, and staff members and program trainees of the Social Research Section have been available as resources to the Department of Psychiatry.

* * *

A new Intensive Care Unit has been activated at North Carolina Memorial Hospital of the University of North Carolina.

The unit, which now has 12 beds in use, will expand to the point where it may accommodate 30 patients.

Hospital officials explain the new unit as, "an area where patients are placed who need constant attention on a 24-hour basis. It brings about more efficient use of trained nursing personnel and removes, to a large extent, patients from the general hospital area who need over and above general nursing care."

Designed for both adults and children, the unit has several nursing stations instead of a single station for the nurses on duty. Glass panels have been installed in the rooms and this allows the nurses to keep every patient in sight at all times.

The unit makes maximum use of electronic devices. A glance at various devices will tell the physicians and nurses the patient's pulse rate, blood pressure, and body temperature. This information is automatically recorded at the nursing station outside of the patient's room.

Private nurses are not required in this new hospital area, for each patient is constantly under the supervision of a nurse. While the cost to the patient for this type of care is \$15 a day higher than for regular hospital care, the patient still

cuts his hospital bill by \$33 per day, as three shifts of private duty nurses cost \$48 per day.

Funds making the new unit possible came from a number of sources. The Women's Hospital Auxiliary donated \$10,000 to the project. Other funds came from the University and the federal Hill-Burton Program through the Medical Care Commission of North Carolina.

* * *

Two annual awards and new officers for the Whitehead Medical Society were announced recently at the annual student-faculty day of the University of North Carolina School of Medicine.

Dr. Colin G. Thomas, professor of surgery, was elected to receive the Professor Award as the "faculty member who by his willingness, understanding and ability has contributed most to our medical education."

The graduating class voted the Henry C. Fordham award to Dr. Hilliard F. Seigler of Asheville, assistant resident in surgery. The award is presented to "a member of the house staff in recognition of his qualities of patience, humility, and devotion to medicine."

* * *

Dr. Warner Lee Wells of Chapel Hill, assistant professor of surgery at the University of North Carolina Medical School, was elected chairman of the board of regents of the National Library of Medicine at Bethesda, Maryland recently.

It was a case of one North Carolinian succeeding another. Dr. Wells, a native of Durham, succeeds Dr. Worth Bagley Daniels of Washington, a native of Raleigh, whose term on the board has expired. He previously served as chairman in 1956-1957.

NEWS NOTES FROM THE BOWMAN GRAY SCHOOL OF MEDICINE WAKE FOREST COLLEGE

Dr. James F. Toole joined the faculty June 1 as professor and chairman of the Department of Neurology. A graduate of the Cornell University Medical Center, Dr. Toole served residencies in medicine and neurology at the Hospital of the University of Pennsylvania and is certified in both specialties. He was a Fulbright Fellow in Neurology at the National Hospital, Queens Square, London, 1955-1956. Since 1959 he has been assistant physician and instructor in neurology at the University of Pennsylvania School of Medicine.

* * *

Dr. J. William Rogers has been appointed to the full-time faculty as instructor in ophthalmology. A native of Bristol, Tennessee, Dr. Rogers is a 1954 graduate of Vanderbilt University. He received the Doctor of Medicine degree from the Bowman Gray School of Medicine in 1958 and served an internship at the Grady Memorial Hospital in Atlanta. He has served as

resident physician in ophthalmology at North Carolina Baptist Hospital since 1959.

* * *

Dr. Eugene A. Hargrove received an appointment to the part-time faculty as lecturer in clinical psychiatry. Dr. Hargrove is clinical associate professor of psychiatry at the University of North Carolina School of Medicine and is Commissioner of Mental Health of the North Carolina Hospitals Board of Controls.

* * *

Dr. Richard L. Burt, professor of obstetrics and gynecology, is the recipient of a \$143,000 Research Career Award from the National Institutes of Health. The award, made in five-year increments and becoming effective July 1, will support Dr. Burt in a long-range study of the changes in body chemistry during normal and abnormal pregnancy and their effects on the mother and unborn child.

Less than 70 Research Career Awards have been granted by NIH. Dr. Burt is the first member of the Bowman Gray School of Medicine faculty to receive such an award.

* * *

Dr. John A. Gergen, assistant professor of physiology and pharmacology, has been awarded a \$74,000 research grant by the National Institutes of Health. The grant will support a three-year study of the relationship of nerve cell activity and behavior.

* * *

The National Institutes of Health have awarded a \$35,000 grant to Dr. Ivan W. F. Davidson, assistant professor of physiology and pharmacology, to support a three-year study of the influences of certain chemical compounds, with possible antitumor properties, on cell metabolism.

Dr. Davidson will investigate the biochemical mechanisms of purine compounds and will attempt to determine the exact place at which the compounds interfere with cell metabolism. He also will investigate their action on host as well as tumor cells.

* * *

Dr. Robert S. Pool, resident teaching assistant in pathology, is the recipient of an Advanced Clinical Fellowship from the American Cancer Society. The fellowship provides a \$6,000 grant which will support Dr. Pool's participation in the research and teaching programs of the Department of Pathology for one year.

* * *

Dr. Phillip J. Hamrick Jr., associate professor of chemistry at Wake Forest College, has been installed as president of the Sigma Xi Club of the Bowman Gray School of Medicine. He succeeds Dr. Richard L. Burt, professor of obstetrics and gynecology. Other officers elected are Dr. Harold O. Goodman, assistant professor of medical genetics, vice-president; and Dr. Walter J. Bo, associate professor of anatomy, secretary-treasurer.

Dr. Robert P. Morehead, professor of pathology, received the Gaston County Medical Society Award of the North Carolina State Medical Society for his scientific exhibit on "Tumor Formation."

Dr. Morehead's exhibit was displayed at the 1961 meeting of the State Medical Society in Asheville. He received notification of the award at the 1962 meeting in Raleigh.

* * *

Dr. Walter J. Bo, associate professor of anatomy, presented a paper at the International Congress on Hormonal Steroids held in Milan, Italy. His paper was entitled "Histochemical Observations on the Synthesis of Glycogen in the Uterus Following Ovarian Hormone Treatment."

* * *

Dr. Fred K. Garvey, professor of urology, delivered the first Hugh T. Beacham Memorial Lecture at the Louisiana State University School of Medicine. He spoke on "Diagnosis and Methods of Evaluating Cancer of the Prostate Gland."

* * *

Four papers were presented by members of the faculty of the Bowman Gray School of Medicine at the fifty-nine annual meeting of the North Carolina Academy of Science at Wake Forest College.

Presenting papers were: Dr. Hugh B. Lofland Jr., associate professor of biochemistry; Dr. Robert W. Prichard, professor of pathology; Dr. R. Glenn Watson, instructor in microbiology and immunology; and Dr. Charles McCreight, assistant professor of anatomy.

* * *

Dr. Howard H. Bradshaw, professor of surgery, has been named first vice president of the Southeastern Surgical Congress.

* * *

Dr. William H. Boyce, professor of urology, presented a paper on "Testicular Adrenal Rests Simulating Tumor" at a meeting of the American Association of Genito-Urinary Surgeons held in Skytop, Pennsylvania. Dr. Boyce also presented a paper on "Immunochemical Studies on Serum and Urinary Proteins in Urolith Matrix in Man" at the New York Academy of Sciences in New York City.

* * *

Dr. Harold D. Green, professor of physiology and pharmacology, lectured on "The Circulation in Peripheral Vascular Disease" at the University of Mississippi.

* * *

An exhibit on "The Pigeon as a Laboratory Animal" was displayed at meetings of the International Academy of Pathology and the American Association of Pathologists in Montreal, Canada. The exhibit was prepared by Drs. Robert W. Prichard, Thomas B. Clarkson, Hugh B. Lofland, H. O. Goodman, Franklin Young, and C. Nash Herndon. Dr. Clarkson also presented a paper on

"The Complication of Spontaneous Atherosclerosis in Pigeons."

* * *

Dr. Hugh B. Lofland Jr. spoke at a recent meeting of the Southern Branch, American Public Health Association, in Roanoke, Virginia. His topic was "Studies in Experimental Atherosclerosis."

EDGECOMBE-NASH MEDICAL SOCIETY

The monthly meeting of the Edgecombe-Nash County Medical Society was held in Rocky Mount on June 13.

Dr. Walter Hollander, director of the new research unit at University of North Carolina School of Medicine, spoke about the research unit and investigative medicine.

It was announced that the Rocky Mount Health Department won first place in the 1962 National Samuel J. Crumbine Awards Competition for outstanding achievement in the development of a program of public foods service sanitation. Competition for this annual award was open to around 1200 local health departments in the United States. Congratulations were extended to Dr. John S. Chamblee and his organization for this outstanding achievement.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The following North Carolina doctors were recently examined and certified in the specialty of obstetrics and gynecology. Final certification was made on April 14, 1962.

Conway H. Ficklen, 306 North 11th St., Wilmington; Benjamin Miller Gold, 410 Peachtree St., Rocky Mount; Paul Green, Jr., 832 West Henderson St., Salisbury; Paul A. Hinds, LCDR, Station Hospital, USMCAS, Cherry Point; Joel Broadus Huneycutt, 118 North St., Albemarle; Robert Frank Kirk, LCDR US Naval Hospital, Camp Lejeune; John Alvin Kirkland, The Wilson Clinic, Wilson; Thomas Willard Littlejohn, 301 Miller Street, Winston-Salem; Jack Elmer Mohr, 202 West 27th St., Lumberton; Edward Nelson O'Quinn, 1624 Princess St., Wilmington; Luther Marcus Talbert, N. C. Memorial Hospital, Chapel Hill; Tom Alford Vestal, Kinston Clinic, Kinston.

AMERICAN HOSPITAL ASSOCIATION

The American Hospital Association will hold its sixty-fourth annual meeting September 17-20 in Chicago, according to an announcement by Edwin L. Crosby, M.D., director.

Approximately 15,000 persons are expected to attend the meeting, the world's largest gathering of hospital representatives. Some 60 program sessions, as well as nearly 500 exhibits, are planned for Chicago's McCormick Place.

Speakers for the opening general assembly at 2:30 p.m. Monday, Sept. 17, will include Chester Bowles, special representative and adviser to the President, whose topic will be "The Face We Show to the World." Steuart L. Pittman, Assistant Secretary of Defense, who will speak on national planning for civil defense; John T. Connor, president of Merck & Company, Inc., speaking on "Industry's Responsibility to Its Communities"; and Dr. George W. Beadle, president of the University of Chicago, who will discuss "The University's Role in Education for the Health Professions."

In addition to the general assemblies, nine programs sessions, dealing with specific phases of hospital operation, will be held each morning and afternoon of the meeting.

AMERICAN COLLEGE OF RADIOLOGY

The amount of radiation to the reproductive organs of Americans from medical uses of x-rays was estimated to be a third to a sixth of earlier presumed levels by a representative of the American College of Radiology testifying in Washington recently.

In a report prepared for a hearing before the Joint Committee on Atomic Energy, Dr. Richard H. Chamberlain, chairman of the department of

radiology at the University of Pennsylvania School of Medicine in Philadelphia, said that based upon studies in other countries, an early estimate of about 150 thousandths of a rad per year is much too high. The figure is more likely to fall between 25 and 50 thousandths of a rad.

Thus, the slight risk involved in medical x-rays is far outweighed by the benefits involved, Dr. Chamberlain told the congressmen. The amount of radiation exposure needed to make diagnostic studies has been decreased in recent years through the development of faster films and intensifying devices which require less energy to provide clear pictures.

AMERICAN RHINOLOGIC SOCIETY

The eighth annual meeting of the American Rhinologic Society will be held in the Statler Hilton Hotel, Los Angeles, November 1-2. A scientific program covering new developments in nasal surgery will be presented on the second day, it was announced by Dr. Charles J. Petrillo of New Haven, president of the society.

The meeting will be preceded by a three-day course in "Expanded Surgery of the Nasal Septum" to be presented at the Ioma Linda University in co-operation with the American Rhinologic Society. Dr. Maurice H. Cottle, professor

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Rubin, W. and Anderson, J. R.:
Angiology 9:256, 1958.

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possessing a sustained action"
in improving circulation
of the inner ear.

Seymour, J. C.: Laryngology &
Otology 74:133, 1960.

of otorhinolaryngology at the Chicago Medical School, will be the guest director of the course.

For the further information, write to the American Rhinologic Society, 530 Hawthorne Place, Chicago 13, Illinois.

INTERSTATE POSTGRADUATE MEDICAL ASSOCIATION

The forty-seventh annual Scientific Assembly of the Interstate Postgraduate Medical Association, to be held at the Palmer House, Chicago, October 1-4, offers 20½ hours of varied teaching (and A.A.G.P. Category II credit) for a registration fee of \$10. The program is especially suited to the needs of generalists, as all lectures, panels, and clinics are closely related to medical problems familiar to the physician who does not devote his time to a single specialty. Panels on "Arthritis," "Diabetes," "Tranquilizers and Energizers," the "Medical and Surgical Treatment of Duodenal Ulcers," and "Newer Treatment of Hypertension" are important parts of the three and one-half day program.

Interstate is not a "membership organization," but offers an annual teaching program for practitioners interested in a varied review of new developments in the major branches of medicine. The 1962 Assembly program offers educational

exposure to more than 90 prominent medical educators, as teachers.

Those interested in full details of the program are urged to write for a brochure, by addressing a postal to N. A. Hill, M.D., Secretary, Interstate Postgraduate Medical Association, Box 1109, Madison 1, Wisconsin.

INTERNATIONAL CONGRESS OF DERMATOLOGY

Dermatologic conditions from acne to zoster—and what to do about them—will command the attention of more than 2,000 dermatologists from all over the world when the Twelfth International Congress of Dermatology assembles in Washington, D. C., September 9-15, 1962.

Dr. Donald M. Pillsbury, Philadelphia, Pennsylvania, Congress President, has announced a scientific program involving more than 350 participants from 41 countries, utilizing almost every technique known to postgraduate medical education.

Three teams of simultaneous translators will function throughout the five-day scientific session, enabling physicians to hear most of the offerings in either English, French, German or Spanish—the official languages of the Congress.

Sponsor is the American Academy of Dermatology. Co-sponsors are the American Dermatolog-

vascular insufficiency of the labyrinth is an important etiologic factor in sudden perceptive deafness...

"vasodilators [Arlidin] are of considerable value."

Wilmot, T. J. and Seymour, J. C.: Lancet 1:1098, 1960.

early cases of sudden perceptive deafness should be treated by immediate stellate block "supplemented by the most effective vasodilator drug [Arlidin]... energetic measures to retain blood supply to the inner ear are imperative."

Wilmot, T. J.: J. Laryngology & Otology 73:466, 1959.

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Clinical benefit in approximately 50% of cases of recent onset hearing loss treated with adequate vasodilator and other supportive therapy is also reported by Sheehy.

Sheehy, J. L.: Laryngoscope 70:885, 1960.

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ical Association, the American Medical Association's Section on Dermatology, the Society for Investigative Dermatology and the Canadian Dermatological Association.

AMERICAN MEDICAL WRITERS' ASSOCIATION

The American Medical Writers Association has announced the appointment of James E. Bryan as its executive secretary. Mr. Bryan will maintain the association's offices at 250 West 57th Street in New York City. The appointment took effect July 1, 1962.

In announcing Mr. Bryan's appointment, Dr. Richard H. Orr, president of A.M.W.A., who is also Director of the Institute for Advancement of Medical Communications, predicted that the establishment of an executive office for the association will inaugurate an expanded program of activity and services of A.M.W.A. members.

UNIVERSITY OF ILLINOIS COLLEGE OF MEDICINE

The Department of Otolaryngology, University of Illinois College of Medicine, will conduct a postgraduate course in laryngology and bronchoesophagology from September 24 through October 6, 1962, under the direction of Paul H. Holinger, M.D.

Registration will be limited to 15 physicians who will receive instruction by means of animal demonstrations and practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures.

Interested registrants will please write directly to the Department of Otolaryngology, University of Illinois College of Medicine, 1853 West Polk Street, Chicago 12, Illinois.

NATIONAL SOCIETY FOR CRIPPLED CHILDREN AND ADULTS

Easter Seal camps throughout the nation are sweeping off their welcome mats in anticipation of the greatest number of crippled children in history, the National Society for Crippled Children and Adults estimated recently. More than 12,000 youngsters will attend 84 resident and day camps in 32 states.

Up-to-date information of camping programs and facilities for the handicapped is available to parents of crippled children in "Directory of Camps for the Handicapped" published by the National Society. Prepared in joint sponsorship with the American Academy of Pediatrics and the American Camping Association, the directory lists and describes 250 resident camps and more than 100 day camp programs.

Copies of the directory are available at 50 cents from local Easter Seal Societies or from the National Society for Crippled Children and Adults, 2023 West Ogden Avenue, Chicago 12, Illinois.

Book Reviews

Problems in Surgery. Edited by George E. Wantz, M.D., with a foreword by Frank Glenn, M.D. 512 pages. Price, \$16.50. St. Louis: C. V. Mosby Company, 1961.

This handsomely bound book with its large easily readable print contains 152 cases selected from a year's record of surgical Grand Rounds at the New York Hospital—Cornell Medical Center. These cases are concisely presented and represent a wide range of disease entities with adequate coverage of problems in subspecialty practice.

Some of the cases might not be considered as problems; however, illustration of their unusual features as well as of their potential pitfalls in diagnosis and management make them worth while. Each case is followed by select and current references which are extremely beneficial when combined with the opinions of the many authorities contributing to the volume.

Genetic Perspectives in Disease Resistance and Susceptibility. Edited by Richard H. Osborne. Annals of the New York Academy of Sciences, Volume 91, Article 3, Pages 595-818, 1961.

This paper-back volume includes the 17 papers that made up a symposium of the same title, and includes a summary of the discussions. The first section consists of four papers summarizing mechanisms of biologic adaptation of man and animals to the environment. The second section discusses the importance of environmental interaction in certain inherited metabolic errors, with emphasis upon inherited variations in the demand for vitamins.

Four papers make up the section concerned with genetic factors in resistance and susceptibility to infectious diseases. Allison presents an excellent summary of the relationship of abnormal types of hemoglobin to resistance to malaria. Schweitzer's discussion of inherited susceptibility to tuberculosis, rheumatic fever and certain other infectious diseases is also quite interesting. The last section of four papers is concerned with some of the problems and methods of epidemiologic investigation of interactions between genetic and environmental influences in diseases.

The participants in this symposium have succeeded in providing a broad and accurate summarization of current knowledge in an important field of medicine. It is certainly important for physicians to recognize that all men are not equal in their susceptibility or resistance to many disease processes. The recognition of specific inherited susceptibility states can lead to protection of selected individuals against environmental factors that may be innocuous to the majority

of the population. Applications of this principle are becoming an increasingly important area in preventive medicine.

Mirage of Health: Utopias, Progress and Biological Change. By Rene Jules DuBos.

235 pages. Price 95 cents. New York: Anchor Books (Doubleday & Company), 1961.

Dr. Rene Dubos' *Mirage of Health*, first published in 1959, has now reappeared as an Anchor paperback, an event for which we should be duly grateful. For Dr. Dubos' appreciation and understanding of medicine's place in society and as a bridge between science and the needs of man is an asset to our age.

In *Mirage of Health* he explores disease as an interplay between many forces—genetic, economic, religious, among others—taking care to point out the scope of our ignorance as we strive to find meaning for our daily lives. Of necessity, the book at times rambles, but so does, and must, the human mind. At present when the difference between social and socialized medicine is being obscured by advocates of the left and of the right, a reading of this balanced view of our striving for health and happiness should serve each of us well.

The Month in Washington

The American Medical Association challenged the Kennedy Administration on the accuracy and legality of its propaganda campaign for the King-Anderson bill.

Dr. F. J. L. Blasingame, executive vice president of the A.M.A., wired Attorney General Robert Kennedy about a booklet issued by the Department of Health, Education and Welfare. Dr. Blasingame said:

"This booklet lobbies for the enactment of the King-Anderson bill. This bill would raise social security taxes to provide limited health services to aged beneficiaries, regardless of whether they need financial help.

"The Department of Health, Education and Welfare has used tax funds, collected from everyone, to propagandize for a bill which many people and many groups have vigorously opposed. Under law, the publishing of this kind of a booklet without Congressional authority is a criminal act, pun-

ishable by fine or imprisonment, or both, and removal from office."

A.M.A. President Dr. Leonard W. Larson wrote President Kennedy correcting a misstatement the Chief Executive made at a news conference.

The President told his news conference that "the A.M.A. was one of the chief opponents of the Social Security system in the 30's." Dr. Larson pointed out to Mr. Kennedy that the American Medical Association had never opposed the Social Security system, either before or after its adoption.

"The Association," Dr. Larson's letter said, "testified before Congress on only one section of the Social Security legislation, the section concerning extension of public health services. It should be noted that the A.M.A. testified in support of this section."

Dr. Blasingame also called on the Justice Department to stop Cabinet members using taxpayers' money for lobbying purposes and to launch an investigation of "improper" lobbying activities of employees of the Department of HEW.

Dr. Blasingame in a letter to Attorney General Robert Kennedy listed more than a dozen incidents which he said violated federal statutes prohibiting lobbying by federal employees and officials.

"Government employees," Dr. Blasingame said, "are being sent out as speakers, at public meetings to urge enactment of the Administration's bill. This, in our opinion, is a clear violation of Title 18, Section 1913 of the U. S. Code on crimes and criminal procedure which prohibits among other things the use of 'personal services' for lobbying purposes."

Dr. Blasingame said that Secretary of Commerce Luther Hodges, Secretary of Labor Arthur Goldberg, and Interior Secretary Stewart Udall were appearing at rallies concurrent with President Kennedy's appearance in Madison Square Garden in the Administration's campaign for the King-Anderson bill.

"We strongly protest the use of tax monies by these Cabinet members to lobby for a bill which is clearly not within the scope of their respective departments," Dr. Blasingame said. "I call on you to issue an

injunction against this type of activity by these Cabinet members."

The A.M.A. Executive Vice President also noted that between six and ten government employees "have been lobbying in the White House offices for several months" for the King-Anderson bill. He said the group occupying a four-room suite "has been writing television and radioscripts, drafting advertisements, and helping with publicity releases for various organizations which are backing the King-Anderson bill."

Dr. Larson also urged that "the American people demand an honest accounting from the Department of Health, Education and Welfare on how much of their tax money the department is spending on lobbying for the King-Anderson bill."

"The people have a right to know how much of their tax money this federal agency is spending in lobbying for this piece of legislation," Dr. Larson said in a speech before the Academy of Medicine of Cincinnati.

Dr. Larson said also that the National Council of Senior Citizens should be required to register as a lobbyist.

"This organization was founded by former Congressman Aime Forand for the express purpose of lobbying for passage of the King-Anderson bill," Dr. Larson said.

In a statement, Dr. Larson cited contradictory statements by two prominent advocates of President Kennedy's health-care-for-the-aged bill—Ribicoff and Rep. Cecil R. King (D., Calif.).

"Mr. Ribicoff and Mr. King may be on the same team but they are in basic disagreement as to the extent of services social security should provide, and how much of an increase in taxes the public will tolerate to finance these services," Dr. Larson said.

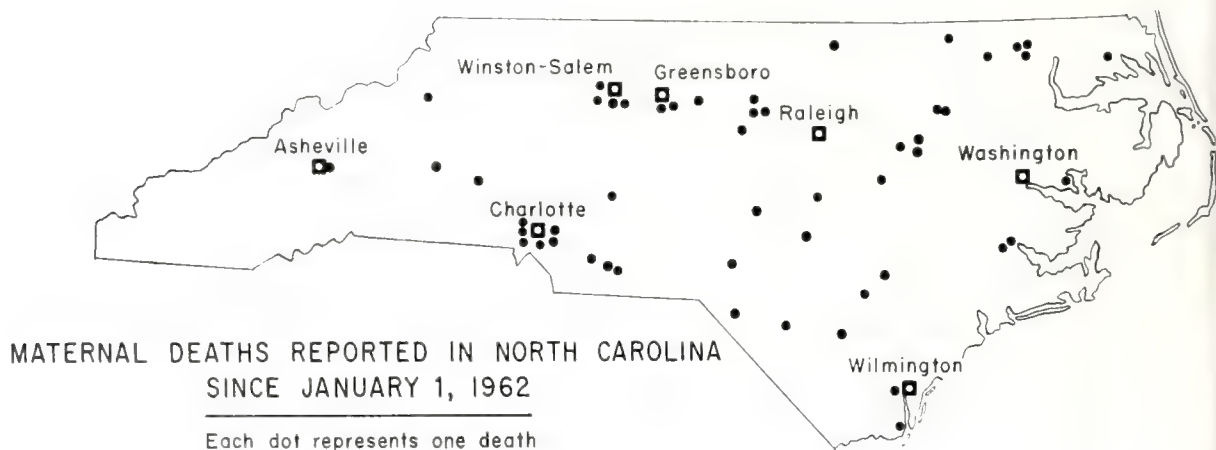
Dr. Larson said: "This is what is happening, Secretary Ribicoff, in an effort to make the King-Anderson bill palatable to those fearing greater Federal taxes, is saying that the health care program will not be expanded because social security taxes have just about hit 10 per cent—his estimate of the saturation point.

"Meanwhile, Mr. King, in order to gain the support of those who believe in the 'federal government playing the role of Santa Claus' is promising increased social security benefits in the future."

* * *

The American Medical Association opposed legislation that would permit beneficiaries of the Federal Employees' Compensation Act to utilize services of chiropractors.

"Chiropractic is a pseudo-science which is not based on scientific methods and, therefore, should be recognized as what it is—a theory of cultism. It is premised on theory that human illness is all related to the spinal column. It holds that the nerves that emanate from the spinal cord become impinged on or pinched by the vertebrae, thereby causing malfunction and disease."



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IN THIS ISSUE:

Obstetric Factors in Cerebral Palsy, A North Carolina Study

Charles E. Flowers, Jr., M. D.

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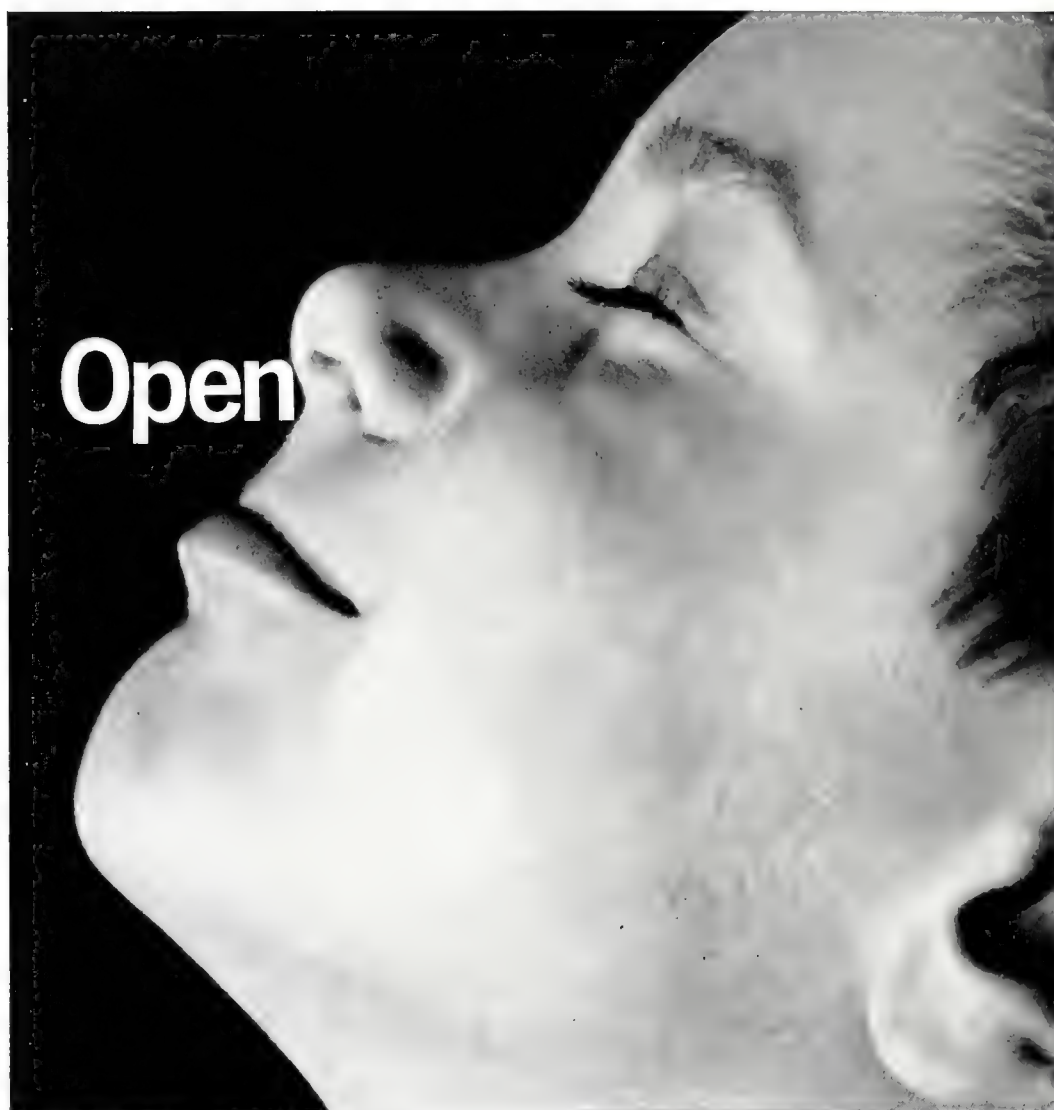
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Obstetric Factors in Cerebral Palsy, A North Carolina Study

WILLIAM A. NEBEL, M.D.*, AND CHARLES E. FLOWERS, JR., M.D., CHAPEL HILL;

O. HUNTER JONES, M.D., CHARLOTTE; CHARLES H. PEETE, M.D.

AND RICHARD L. PEARSE, M.D., DURHAM; ARTHUR R. SUMMERLIN, M.D., RALEIGH

The purpose of this study is to bring attention to some of the obstetric problems related to cerebral palsy, one of the most important challenges of modern obstetrics.

Phelps estimates that there are 7 new cases of cerebral palsy per 100,000 population per year, or 7 new cases per 1500 live births¹. The Swedish study of Herlitz and Redin² reports an incidence of 2.1 per 1000 population. Wells³ estimates there are over 3,720 cases of cerebral palsy in North Carolina, with an incidence of 2.1 cases per 1000 population under 21 years of age.

The study of Levin and others⁴ gives an idea of the magnitude of the problem of cerebral palsy as compared with the other major crippling disease of childhood, poliomyelitis. The estimated average annual increment of patients with moderate or severe cerebral palsy is 1200; this is almost three times the comparable figure for poliomyelitis, 412.

The tragedy of this disease is not often experienced by the obstetrician, for he does not treat the crippled child. Moreover, he does not know when obstetric errors have contributed to the development of the condition.

The importance of obstetric factors in cerebral palsy was recognized more than a century ago, when an English orthopedic surgeon, William John Little, wrote a classic paper entitled "The Influence of Abnormal Parturitions, Difficult Labors, Premature Births, and Asphyxia Neonatorum on the Mental and Physical Condition of the Child, Especially in Relation to Deformities".⁵ It remained for Eastman and De Leon⁶, in 1955, to enlist the obstetrician in the effort to expand the knowledge of the etiology of this disease.

Description of the Study

A retrospective study and correlation of the prenatal and paranatal history of the palsied child, along with his neurologic, orthopedic, and psychologic defects, was chosen as the best means of accomplishing the dual objects of interesting obstetricians in cerebral palsy, and of investigating any preventable obstetric factors in its etiology.

It was decided to obtain the clinical records required for an adequate evaluation from the following North Carolina institutions: North Carolina Memorial Hospital, Chapel Hill; Duke University Medical Center, Durham; Watts Hospital, Durham; Rex Hospital, Raleigh; Memorial Hospital, Charlotte; and Presbyterian Hospital, Charlotte. All cerebral palsy patients who had been born at one of the above hospitals and treated at either North Carolina Cerebral Palsy Hospital, Durham, or Charlotte Rehabilitation Hospital, Charlotte, were included in the study.

Presented at a meeting of the North Carolina Obstetrical and Gynecological Society, Mid Pines, North Carolina April 28-29, 1962.

From the Department of Obstetrics and Gynecology, University of North Carolina School of Medicine, Duke University School of Medicine, and Watts Hospital, Durham; Memorial and Presbyterian Hospitals, Charlotte; Rex Hospital, Raleigh.

Supported by the United Cerebral Palsy Education and Research Foundation.

*United Cerebral Palsy Medical Student Fellow.

Table 1

Distribution According to Neurologic Type

Type	Total	Per Cent
Spastic	45	57
Quadriplegia	28	36
Hemiplegia	11	14
Paraplegia	4	5
Diplegia	1	1
Triplesia	1	1
Extrapyramidal	25	31
Athetoid	11	14
Atonic	10	13
Ataxic	4	5
Mixed	9	11

There were 64 patients at North Carolina Cerebral Palsy Hospital whose records were used. This group was composed of 27 who had been born at Watts Hospital, 25 at Duke, 9 at Rex, and 3 at North Carolina Memorial Hospital.

There were 14 patients treated for cerebral palsy at Charlotte Rehabilitation Hospital: 7 born at Presbyterian Hospital and 7 at Charlotte Memorial Hospital.

It is apparent that this is not a representative sample of all cerebral palsy patients in North Carolina. This is due to two factors.

First, the original source of data was two large referral hospitals: North Carolina Cerebral Palsy Hospital and Charlotte Rehabilitation Hospital. These institutions are primarily concerned with the orthopedic and physical therapy aspects of the disease. Therefore, the study excludes any patients who were not treated at one of these institutions either because their handicaps were not severe enough to cause them to seek this kind of treatment; because their particular disabilities were more amendable to other forms of therapy; or because they had received similar treatment elsewhere. Another factor is that in every case the diagnosis was made by an orthopedist rather than by a neurologist or pediatrician.

The second source of bias in the samplings is the restriction of maternal records to those from institutions with a satisfactory quality of hospital records. Moreover, the diversity of data prevented the use of adequate clinical controls.

Neurologic Types

The distribution of the various neurologic

types of cerebral palsy, according to the classification used by Crothers and Paine⁷, is given in table 1. As mentioned before, these diagnoses were made by orthopedic surgeons in each case. Crothers and Paine report a higher percentage of spasticity, hemiplegia in particular, whereas this study shows a larger proportion of spastic quadriplegia and extrapyramidal types. The two studies show similar figures for the mixed group.

Sex and Race Distribution

There was a difference in the sex distribution of cases, as is demonstrated in table 2. This difference is due to the disproportionately larger group of premature boys.

Table 2

Distribution According to Sex

	Male	Per Cent	Female	Per Cent
Mature	28	60	19	40
Premature	22	71	9	29
Unknown	0	0	1	100
Total	50	63	29	37

A difference in racial distribution is less readily determined, since only two of the hospitals, Duke University Medical Center and North Carolina Memorial Hospital, treated Negro obstetric patients at the time of the survey.

Table 3

Distribution According to Race

Race	Total	Per Cent
Non-White	15	52
White	14	48

The similarity in racial distribution indicated in table 3 may be more apparent than real, for the ratio of white to non-white deliveries at North Carolina and Duke Hospitals is approximately 60:40. Furthermore, the perinatal mortality at North Carolina Memorial Hospital is 28 per 1000 births for white patients and 48 per 1000 births for non-white patients, according to Flowers and others⁸; and, according to Peete, perinatal mortality at Duke was also higher for non-whites.

These data raise questions which we are unable to answer. Were there actually more non-white than white cerebral palsy births, and is the apparent similarity in racial dis-

Table 4

Distribution According to Birth Weight

Type	No.	Per Cent
Mature	47	60
Premature	31	39
Less than 1000 Gm.	2	2
Between 1000 & 2000 Gms.	17	22
Between 2000 & 2500 Gms.	12	15
Unknown	1	1

tribution due to a higher perinatal mortality among non-white patients? If the answers to these questions were known, a more objective appraisal of the racial distribution could be offered.

Cases Associated with Prematurity

According to Eastman and De Leon, "The most generally known and best attested etiologic factor in cerebral palsy is premature births."⁹ A similar causal relationship has been reported by other authors.¹⁰

The incidence of prematurity in this series is 39 per cent (table 4), which is within the general range of 30 to 40 per cent reported by most authors.

Eastman⁹ has reported that, of a series of 3331 consecutive premature births at Johns Hopkins Hospital from 1926 through 1945, 38.1 per cent were associated with some etiologic factor. A similar association was very apparent in this study (see table 5). Sixty-eight per cent of the premature births in this series were associated with either prenatal factors, such as precipitate, prolonged, or otherwise traumatic labor, which could be indicted as causal factors alone.

Table 5 indicates the relatively high percentage of the premature births (45 per cent) that were associated with traumatic delivery—namely, breech presentation, precipitate delivery, difficult forceps delivery, and compound presentation. The incidence of breech delivery is striking. Eight (57 per cent) of the mothers in this group had other obstetric complications, such as 5 (36 per cent) with placenta previa (one of whom also had pre-eclampsia, one produced an erythroblastotic child, and one underwent a precipitate delivery), and 3 (21 per cent) with abruptio placentae.

An additional 7, or 23 per cent of the premature births, were associated with abnormal obstetric factors which could produce an

Table 5

Abnormal Obstetric Factors Associated with the Premature Cases

	No.	Per Cent
Prenatal factors alone	7	23
Placenta previa	1	3
Abruptio	1	3
Toxemia	2	6
Other (one each with lues, amnionitis and anemia)	3	10
Paranatal factors alone	14	45
Breech delivery	7	23
Precipitate delivery	3	10
Compound presentation	2	6
Difficult forceps	2	6
Total	21	(68% of all premature cases)

environment favorable for the production of cerebral palsy. Two (28 per cent) of the mothers had toxemia, one each (14 per cent) had abruptio placentae and placenta previa, and 1 each had either lues, amnionitis, or severe anemia.

One of the striking correlations in the premature group is the high association with prematurity and fetal mortality in previous pregnancies of the mothers. Table 6 shows that 23 per cent of the mothers had previously delivered premature children, and 4 of these had also previously aborted. Twenty per cent of the mothers had had previous abortions alone; one of them also had a history of hydatidiform mole. One, or 4 per cent, of the mothers had had 2 previous breech deliveries before the birth of the patient, which was a compound presentation. This tendency toward unsuccessful reproductive efforts by the mothers of premature cerebral palsy patients is reported by Crothers and Paine⁷, and Lilienfield and Pasomanick^{10a}.

The obstetrician should be aware of this association in counseling couples who are planning to have more children, or multiparous women who have experienced previous fetal mishaps. This area could well be the key in the effort to decrease the incidence of cerebral palsy by sage prophylaxis.

Table 6 indicates that prematurity was associated with the spastic type of cerebral palsy, especially paraplegia and quadriplegia. The same was found to be true for the extrapyramidal type. Only the athetoid

Table 6

Distribution of Cases in Premature Group
by Neurologic Type

Type	No.	Per Cent of Total No. of Similar Neurologic Type ^a
Spastic	23	51
Quadriplegia	16	57
Paraplegia	1	100
Hemiplegia	3	27
Extrapyramidal	5	20
Athetoid	4	36
Atonic	1	10
Mixed	3	33

^aExpected per cent for any given type is 39.2, the percentage of prematures in this study. The figure in the right hand column is given to demonstrate the variation of each group and subgroup from the expected.

group approached the expected incidence. The mixed type is distributed almost proportionately between the mature and premature groups.

Fuldner¹¹ likewise found a high association of prematurity with quadriplegia and paraplegia, as did Perlstein¹² for paraplegia.

Full-term Cases

Forty-seven patients in the series (60 per cent) weighed more than 2500 Gm. at birth (table 4). Ten (21 per cent) of this group had a history of prenatal factors which could be conducive to the development of cerebral palsy (table 7). Four cases (9 per cent) were associated with toxemia, 2 each (4 per cent) with placenta previa or erythroblastosis, 1 each (2 per cent) with diabetes mellitus or fetal distress. In addition, 2 of the mothers with toxemia had traumatic labor: 1, a precipitate delivery; the other, prolonged delivery. Thus, the premature group had a higher incidence of prenatal bleeding than did the full-term group.

Fourteen, or 30 per cent, of the full-term patients experienced obstetric conditions which can be used to explain the development of cerebral palsy (table 7). These conditions included 4 breech deliveries (9 per cent of the cases), 3 precipitate deliveries (6 per cent), 2 instances of prolonged labor with a difficult forceps delivery (4 per cent), and 1 each (2 per cent) of prolonged labor, compound presentation, elective cesarean section, Pitocin induction with prolapse of the cord, or Pitocin stimulation with hypotension during caudal anesthesia. The

Table 7

Abnormal Obstetric Factors
Associated with Cases in the Mature Group

	No.	Per Cent
Prenatal factors alone	10	21
Toxemia	4	9
Erythroblastosis	2	4
Placenta previa	2	4
Diabetes mellitus	1	2
Fetal distress	1	2
Paranatal factors alone	14	30
Breech delivery	4	9
Precipitate delivery	3	6
Prolonged labor with difficult forceps delivery	2	4
Prolonged labor alone	1	2
Compound presentation	1	2
Elective cesarean section	1	2
Pitocin induction with cord prolapse	1	2
Pitocin induction with hypotension during caudal anesthesia	1	2
24 or 51% of matures infants		

incidence of traumatic labor is much lower than that for the premature group, especially in breech deliveries.

Therefore, out of the group of 47 patients with birth weights greater than 2500 Gm., 24 (51 per cent) have a history of either prenatal or paranatal factors which could explain the subsequent development of cerebral palsy. Thus, only 23 patients, or 29 per cent of the entire series of 79, are free from the abnormalities of pregnancy and labor which Eastman and De Leon used as criteria in the etiology of cerebral palsy: "abnormal bleeding during pregnancy or labor, a labor not lasting between 3 and 24 hours, a second stage of more than 2 hours, intrapartum fever, delivery not spontaneous or low forceps by the vertex, anesthesia complications, and a weight less than 2500 grams with a febrile hospital stay." Eastman and De Leon give a comparable figure of 19 per cent, which is extraordinarily close to ours, considering the more elaborate means of control available for their study.

The incidence of previous premature deliveries in the mothers of full-term patients is 15 per cent, 43 per cent of whom had also aborted previously, (table 6). One of these mothers had pre-eclampsia with the birth of her premature child, and was delivered

of her next two children by elective cesarean section, the second one being the patient. An additional 19 per cent of the mothers had aborted earlier, but had not produced premature offspring. Two per cent of the mothers had prolonged labors in previous deliveries. The incidence of previous abortions in this group is similar to that in the premature group. However, there were fewer previous premature births in this group.

Forty-nine per cent of this group of patients were first-born; this figure is higher than that for the premature group. The average maternal age at the time of birth of the patient was 25 years, which is lower than the national average and the average of the premature group. Thus mothers bearing premature children are older on an average, than mothers delivering full term infants.

Onset of Symptoms

As previously mentioned, the obstetrician is not associated with this disease as intimately as his suggested role in the prevention warrants. This fact was emphasized in this study; only 13 per cent of the patients demonstrated the initial symptoms of cerebral palsy during the mothers' puerperal stay in the hospital. Consequently, the obstetrician often never learns of the disaster.

Mental Deficiency

An additional tragedy associated with cerebral palsy is mental deficiency (table 8). Twenty-eight of the 31 patients born

Table 8

Incidence of Mental Deficiency

Maturity	Mental Deficiency
Premature	54%
Mature	52%
Total	53%

prematurely received psychometric examinations, and 54 per cent were judged to be mentally deficient. Forty-six out of the 47 full-term patients were tested similarly, and 52 per cent were deemed to be mentally deficient. The total incidence of mental deficiency is 53 per cent. It appears that there is little if any difference in the psychologic performance of the two groups. This arouses

the speculation that some factor other than prematurity is responsible for mental deficiency.

Since the majority of the patients in this series were formally tested by psychologists, it is our feeling that this high incidence of mental deficiency is significant. Perlstein and Barnett, Herlitz and Redin, and Crothers and Paine also reported an association of cerebral palsy with mental deficiency.

Illustrative Cases

Premature births

Case 1: A 23 year old white woman, para 4-1-1-5, began to have painless, vaginal bleeding at the thirtieth week of pregnancy. The bleeding was attributed to placenta previa. The 1380-Gm. infant offered a compound presentation, feet and vertex, and was delivered spontaneously. It was apneic and required resuscitation. Three years later it was diagnosed as having spastic paraplegia with mental deficiency.

Case 2: A 19 year old Negro woman, para 0-2-1-2, had abruptio placentae of sufficient severity to produce shock. Delivery was by assisted footling-breech. The infant weighed 1100 Gm. and required resuscitation. Spastic paraplegia developed.

Case 3: A 22 year old, white woman, para 4-0-0-4, had painless vaginal bleeding at term. Following the diagnosis of placenta previa, a Willet clamp was applied for 15½ hours. The infant weighed 1830 Gm. and was later found to have hemiplegia with mental retardation.

Case 4: A 37 year old Negro woman, para 12-0-0-12, began to have painless vaginal bleeding. A sterile amniotomy was performed and Willet forceps were applied for 58 hours. The infant weighed 1830 Gm. and developed spastic hemiplegia with mental retardation.

Case 5: A 41 year old Negro primigravida woman had a cesarean section at the thirty-sixth week of pregnancy because of placenta previa. Four and one-half years later the child was diagnosed as having hemiplegia, mixed athetoid and spastic.

Case 6: A 38 year old white woman, para 2-0-0-2, had an elective cesarean section under spinal anesthesia at 37 weeks because of previous Sturmdorf cervical repair. The infant weighed 2110 Gm. At 7 years of age the diagnosis of athetosis with mental deficiency was made.

Cases 1, 2, 3, 4, and 5 illustrate the importance of obstetric hemorrhage and prematurity in cerebral palsy. The unfortunate outcome of these pregnancies may be due

to intrauterine hypoxia, the trauma associated with the birth process of a small infant, or neonatal factors associated with prematurity.

It is difficult to ascertain the association of the Willet forceps and cerebral palsy. It would seem reasonable, however, to reduce to a minimum the duration of labor in the hemorrhagic complications of obstetrics, since there may be a direct correlation between brain damage and the length of hypoxia. Certainly 58 hours is a long time for a Willet clamp to remain on an infant's scalp.

Case 5 illustrates that cerebral palsy may occur when placenta previa is managed by cesarean section. Reasonable obstetric judgment must be exercised in this condition in order that the operation be done at the proper time and with minimal trauma.

It was not stated whether oxygen was used in this case. The constant use of oxygen in the hemorrhagic complications is mandatory.

Case 6 is a classic illustration of poor obstetric judgment. Sturmdorf repair, *per se*, does not ordinarily constitute an indication for cesarean section. The patient should have been allowed to go into labor so that prematurity could have been avoided, even if the necessity for section became apparent during labor.

Full-term cases

Case 1: Labor was induced in a 27 year old white woman on the expected day of confinement because of a previous stillbirth. The infant's head was not engaged; presentation was vertex and hand. The cord prolapsed, and a difficult forceps rotation was performed under ether anesthesia. The child had spastic paraplegia with mental deficiency.

Case 2: A 24 year old white primigravida was in labor for 28 hours, with uterine inertia and midpelvic arrest. Barton and Kielland forceps were used in an unsuccessful attempt at rotation. An internal podalic version yielded a 3340-Gm. infant. At 6 years of age a diagnosis of tension athetosis with mental deficiency was made.

Case 3: A 26 year old white woman, para 1-0-0-1, Rh negative, with a Rh titer of 1:64, went into spontaneous labor at term. The infant weighed 3200 Gm., but was icteric, anemic, and listless. Two exchange transfusions were administered. At 2 years of age the diagnosis of cerebral ataxia with deafness was made.

Case 4: A 30 year old white woman, para 1-1-0-1, had a repeat elective cesarean section under cyclopropane and Sodium Pentothal anesthesia at 37 weeks of pregnancy. The infant was narcotized at birth. There were no obstetric abnormalities. When the child was 2 years of age, a diagnosis of spastic hemiplegia was made.

Case 1 illustrates the complications and tragic results of an ill advised induction. Case 2 is a classic example of obstetric factors associated with cerebral palsy when there is insistence on traumatic vaginal delivery rather cesarean section in obstetric dystocia.

In both of these cases it is doubtful if the obstetricians were aware of the final outcome of the deliveries. All too often when such cases are discussed, the obstetrician comments, "But the child left the hospital in good condition."

Case 3 illustrates the damaging effects of Rh incompatibility upon the brain. The infant was delivered at term. There may have been no obstetric errors in this case, but it is included as a reminder that early induction of labor may be indicated in selected cases of incompatibility.

Case 4 illustrates an authentic case of a truly elective cesarean section yielding a full-term infant who developed cerebral palsy. It serves to remind obstetricians that narcotization and/or too much anesthesia, or traumatic delivery whether by the vaginal route or cesarean section should be avoided.

Thirty per cent of the cerebral palsy deliveries studied from one hospital, however, were effected by cesarean section. This is a sizable percentage, indicating that the selection of cases, type of anesthesia, methods of resuscitation, and neonatal care should be carefully scrutinized.

Summary

Seventy-nine cases of cerebral palsy were analyzed in a retrospective study of obstetric factors related to the etiology.

1. A high percentage of spastic quadriplegia and extrapyramidal types of cerebral palsy was found.

2. There was a disproportionately large group of males, particularly in the prematurity group.

3. There was little variation in the racial distribution of cases. The possibility that this lack of variation is more apparent than real was discussed.

4. Thirty-nine per cent of the patients in the study were prematurely born. This percentage was higher than would be expected in a normal population. Sixty-eight per cent of the cases in this group were associated with prenatal or paranatal complications which could be conducive to the development of cerebral palsy.

5. Only 51 per cent of the patients with birth weights greater than 2500 Gm. had experienced similar prenatal or paranatal complications.

6. Only 29 per cent of the entire series were neither born prematurely nor the result of an abnormal gestation or labor.

7. There was a high degree of association with previous fetal mishaps—that is, abortions and prematurity. This was proportionately higher in the group of patients born prematurely. Thus it is suggested that the obstetrician should be aware of this association in his counseling and management of patients with a poor obstetric history.

8. There was a high degree of association of spastic paraplegia and quadriplegia with prematurity.

9. There was a high degree of association (53 per cent) with mental deficiency.

10. In only 13 per cent of the cases was suspicion of brain damage aroused while the mother was in the hospital during the puerperium. This fact is offered as an explanation for the obstetrician's previous lack of contact with this disease.

Conclusions

The study indicates the importance of obstetric factors in cerebral palsy and mental retardation; it emphasizes that obstetri-

cians are not generally aware of the development of these conditions among the infants they deliver.

It is recommended that cerebral palsy and mental retardation be made reportable to the State Health Department. With proper reporting, the State Health Department could notify a physician when he has delivered a cerebral palsied or mentally retarded infant. Proper exchange of information among obstetricians could help eliminate some of the obstetric factors which are associated with these conditions.

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Symposium on Recent Advances in Cardiac Resuscitation

Causes and Prevention of Cardiac Arrest

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"Cardiac arrest" is a dramatic term which has been employed for over one hundred years to describe a limitless variety of catastrophic events resulting in operating room deaths. Because of its misuse, it is being supplanted by such terms as "cardiac standstill" and "sudden cardiovascular collapse."

All these phrases refer to the sudden failure of effective circulation, which may be diagnosed by the sudden disappearance of the pulse, heart beat, and blood pressure. Other signs of sudden cardiac arrest are the absence of wound bleeding, pallor or cyanosis, and apnea or gasping. Cardiac arrest may occur either as cardiac asystole or ventricular fibrillation. An attempt is made in this presentation to review the causes of cardiac arrest and to discuss its prevention.

Incidence

The importance of cardiac arrest can be readily determined by the number of articles written about the subject. It has been stated that 10,000 cases occur every year in the United States¹ The incidence as reported from major hospitals varies from 1 case in every 968 operations² to 1 in every 4172 operations³.

At present it is impossible to establish the true incidence of cardiac arrest because of insufficient data and lack of uniformity in diagnosis. Most authors feel that the number of cases is increasing every year, in spite of tremendous advances in the field of anesthesia⁴. Reasons given for this rising incidence are the growing awareness and more frequent use of the diagnosis, the increasing number of surgical procedures in poor risk patients, and the increasing number of extensive and difficult surgical procedures.

Although the total incidence of cardiac

arrest has not declined, the total number of anesthesia-related cases dropped in one series from 1 in 1062 to 1 in 3775 operations⁵. From the wide variance of statistics and definitions, it can be seen that it is a difficult task to arrive at the underlying causes of this emergency.

Etiology

The etiologic mechanisms of sudden cardiac arrest are multiple and complex. Anesthetic management, the type of operation performed, and the physiologic derangements of the patient are all intimately involved in setting the stage for the event. Almost any major mishap in the management of the total patient may lead to sudden cardiovascular collapse. Too much premedication, too little premedication, too deep a plane of anesthesia, too light a plane of anesthesia, too many anesthetic agents, too few anesthetic agents, too much blood replacement, too little blood replacement, too many reflexes, and too few reflexes have all been implicated. It can not be over emphasized that each patient is an individual problem, and that only with constant observation and teamwork between competent surgeons and anesthesiologists can he be brought safely through an operation.

The basic causes of cardiac arrest are: (1) anoxia of the heart muscle from impaired ventilation or impaired circulation; (2) too great a concentration of certain chemicals in the heart, such as carbon dioxide, potassium, epinephrine, and anesthetic agents which produce myocardial depression; (3) cardiac reflexes; and (4) a combination of the above factors. With these basic causes in mind, a more detailed description of the etiologic factors in cardiac arrest will be presented.

Impaired ventilation

The term "ventilation" embraces all the factors associated with the transport of

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oxygen to the blood stream. Impairment of ventilation with its associated anoxia is one of the most frequent basic causes of cardiac arrest. Impaired ventilation may be due to:

1. *Medication*: In sufficient dosage, most drugs employed in anesthesia will produce respiratory depression. Preoperative and postoperative narcotics and barbiturates, most of the anesthetic gases, and muscle relaxants are prime examples. Adequate respiration must be maintained at all times by spontaneous, assisted, or controlled respiration. Respiration, along with the other vital signs, should be monitored from the time that the patient receives his first preoperative medication until he receives his last hypodermic injection for postoperative pain.

2. *Decreased oxygen tension in the inspired air*: Decreased oxygen tension usually results from miscalculation of the amounts of gases being introduced into the patient, such as 9 liters of nitrous oxide to 1 liter of oxygen; or to mechanical factors associated with anesthetic equipment, such as running out of wall or tank oxygen, excessive rebreathing of exhaled air when too large an open drop mask is being used, and the accidental administration of another gas when oxygen is desired.

3. *Upper respiratory obstruction*: Constant vigilance on the part of the anesthesiologist is necessary to maintain a perfect airway. Common causes of respiratory obstruction are the tongue; the lips in edentulous patients; adenoids in children; foreign bodies in the nasopharynx, such as broken teeth, mucus, blood, gum, or vomitus; tumors or abscesses in the pharynx; poorly placed or obstructed endotracheal tubes; and laryngospasm from foreign material in the pharynx, too high a concentration of anesthetic gases, or reflex stimulation.

4. *Restraint of thoracodiaphragmatic movement*: Examples of restraint of thoracodiaphragmatic movement are improperly placed retractors in the chest or abdomen causing mechanical pressure on the lungs, tension pneumothorax, pleural effusion, obesity, and acute gastric dilatation from improperly assisted or controlled type of respiration, or from placement of a nasal

oxygen catheter or endotracheal tube in the esophagus.

5. *Lower respiratory obstruction*: Pulmonary edema, mucus, bronchial tumors, bronchospasm, pneumonia, atelectasis, ruptured lung abscesses, and foreign bodies such as gastric contents and bronchoscopes may cause lower respiratory obstruction.

The more important causes of impaired ventilation have been discussed. The important point to remember is that constant observation is necessary on the part of the anesthesiologist to prevent impaired ventilation with its associated anoxia and cardiac arrest potential.

Impaired circulation

Impaired circulation may lead to anoxia of the heart muscle just as rapidly as can impaired ventilation, and with the same disastrous outcome. Impaired circulation may be due to:

1. *Localized impairment of the circulation within the heart*: The best known example of this type of impaired circulation to the heart muscle is atherosclerosis of the coronary arteries. Patients with known coronary artery disease should be handled with great care to prevent conditions leading to further anoxia of the heart muscle.

2. *Central factors*: Circulation is impaired if the heart is unable to maintain an effective output. Causes of ineffective cardiac output include overdosage of the myocardial depressants used in anesthesia such as occurs in some crash inductions, overloading of the circulatory system with blood or fluids, recent myocardial infarction, displacement of the heart from gastric dilatation, anomalies of the heart and great vessels, endocarditis, tension pneumothorax, and air embolism.

3. *Peripheral factors*: Causes of hypotension during anesthesia are too numerous to go into in great detail. The most important ones are sudden hemorrhage from the operative site, overdose of anesthetic agents, sudden positional changes during anesthesia, reflex hypotension such as that due to carotid sinus reflex, sudden release of tourniquets, release of aortic clamps, sympathetic blockade from high spinal anesthesia, pulmonary embolism, adrenal cor-

tical insufficiency, overwhelming septicemia or toxemia, incompatible blood transfusions, reaction to local anesthetic agents, and the continuing action of preoperative drugs such as Reserpine.

These are a few of the innumerable causes of impaired circulation. They point out the fact that hypotension and impaired cardiac output or a combination of these factors may occur during the administration of any anesthetic and if untreated may lead to cardiac anoxia and arrest. Constant observation will prevent most of these factors and lead to the early recognition of other causes of impaired circulation in time to prevent a sudden cardiovascular collapse.

Chemical mechanisms

The complex interaction of various chemicals on the heart is believed by many authors to set the stage for sudden cardiac arrest. This entire subject is so controversial and interrelated that time does not permit a full discussions of the factors involved. Anesthetic agents, hypercarbia, hyperpotassemia, increased circulating epinephrine, and vagal and sympathetic reflexes may all work together to precipitate cardiac arrest.

Hypercarbia: The development of hypercarbia in an anesthetized patient is considered by most anesthesiologists to be a cardinal sin, outranked only by hypoxia. The most important causes of increased carbon dioxide levels in the blood stream are respiratory depression from medications, respiratory obstruction from any of the causes already mentioned, exhausted soda lime in the anesthetic circuit, defective exhalation valves, and dead space out of proportion to the tidal volume leading to excessive rebreathing.

All these factors can be prevented by the anesthesiologist by inspection of the anesthetic equipment; by constant observation of the patient's airway and respiration, with assisted or controlled respiration throughout all general anesthetic procedures; by the use of partial or non-rebreathing systems with adequate gas flow to prevent accumulation of carbon dioxide, and by the use of equipment adjusted to the size of the patient so that dead space in the equipment

is not out of proportion to the patient's tidal volume.

Hypercarbia has been shown to have numerous harmful effects in the patient. It acts through the central nervous system to stimulate the adrenal medulla to secrete more epinephrine, which in turn mobilizes potassium from the liver, which in turn stimulates the adrenal medulla to secrete still more epinephrine⁶. Hyperpotassemia, hypercarbia, and epinephrine may all act on the heart to precipitate sudden cardiac arrest. It has also been stated that "hypercarbia doesn't stimulate vagal activity directly but it 'sets the stage' for cardiac arrest if vagal stimulation is present."⁷ Price and his co-workers also have concluded that the cardiovascular responses to carbon dioxide are obtunded during general anesthesia, and that the most reliable circulatory indication of hypercarbia in their anesthetized subjects was the presence of cardiac arrhythmias.

It is not practical now to monitor carbon dioxide levels in patients. No ill effects have been seen from the production of respiratory alkalosis during anesthesia. In fact, the elevation of the pH of the blood through hyperventilation may reduce the cardio-inhibitory effects of vagal stimulation as produced by surgical stimulation.⁸ Therefore, cardiac arrest may be prevented by hyperventilation with simultaneous removal of carbon dioxide by efficient carbon dioxide absorbers and sufficient flows of gases into the anesthetic circuit.

Hyperpotassemia: Increased levels of potassium in the blood have been implicated in precipitating cardiac arrest. Gordon and Jones have stated: "Ventricular fibrillation results from profound and sudden ionic imbalances. Experimentally such imbalances can be produced by a variety of substances, but clinically only potassium is capable of being mobilized with the speed and amplitude required to produce this lethal complication."⁹ Significant elevations in the potassium level may be caused by anoxia, hypercarbia, rapid transfusions with bank blood, administration of drugs which increase epinephrine levels, and stress situations which cause increased

blood epinephrine levels. Prevention of the causes of hyperpotassemia will help to prevent cardiac arrest.

Epinephrine: Increased circulating epinephrine has been shown to set the stage for cardiac arrest. The easiest way to produce ventricular fibrillation in the laboratory is by using anoxia in combination with epinephrine. The most important causes of increased epinephrine levels in the blood are anxiety, injection of epinephrine by the surgeon to control wound-bleeding, administration of anesthetic agents which stimulate epinephrine secretion such as ether, and the presence of pathologic conditions such as thyrotoxicosis and pheochromocytoma. Certain anesthetic agents in combination with epinephrine may produce serious ventricular arrhythmias leading to cardiac arrest. These agents are fluothane, chloroform, cyclopropane, and trichlorethylene.

Anesthetic agents: Overdosage of virtually any of the agents used in anesthesia can result in cardiac arrest. Guedel's fourth state of anesthesia lasts from the onset of complete respiratory paralysis to cardiac failure and death; therefore, all the agents used to produce complete anesthesia can result in cardiac failure if the dose is too large. Muscle relaxants given in excess may lead to prolonged apnea, which if not treated properly may result in death.

Probably the most frequent error in anesthesia today is the maintenance of too deep a plane of anesthesia. Anesthesia overdosage may be prevented by constant observation of the depth of anesthesia, use of balanced, light anesthesia with agents being utilized for a specific purpose, use of accurate vaporizers to dispense agents, and avoidance of crash inductions.

Reflex mechanisms

Vago-vagal and vago-sympathetic reflexes are considered by some authors to be the commonest precipitating factor in cardiac arrest¹⁰. A combination of a potent reflex produced surgically or by anesthetic maneuvers in the presence of hypoxia or hypercarbia is prone to produce the disaster. Cardiac arrest due to reflexes can best be prevented by adequate administration of atropine, adequate depth of anesthesia, gentle

manipulation by the surgeon and anesthesiologist to prevent the origin of the reflex, and adequate ventilation. These reflexes are likely to be activated by stimulation of the pharynx and respiratory tree as by endotracheal intubation and extubation, laryngoscopy, bronchoscopy, gastric aspiration into the bronchial tree, endotracheal suction, and removal of tonsillar packs.

Thoracic operations can lead to reflex cardiac arrest from direct stimulation of the vagus nerve, purse-string suture on the hilus, dissection of the hilus, and stripping of the periosteum. The coeliac plexus reflex may be activated by manipulation or traction of the abdominal viscera or by application of tight abdominal binders at the end of the operation. Other reflexes may arise from operations on the eye (oculo-vagal), neck dissections (carotid sinus), pressure on the floor of the fourth ventricle, and from stimulation of the somatic nerve as in skin incisions.

Prevention

From the foregoing discussion it can be seen that the causes of cardiac arrest are multiple and complex. No one factor can be cited as the sole cause. Usually a combination of factors is involved. The best treatment is prevention—which I shall now endeavor to discuss.

From the multiplicity of causal factors in cardiac arrest and their complex interrelationships, it follows that prevention encompasses the total management of the individual patient. Mutual respect and confidence must exist between the patient, the surgeon, and the anesthesiologist. Teamwork is essential.

In this day of so-called "safe anesthesia," formidable procedures are undertaken on poor risk patients. Thorough preoperative evaluation should be undertaken by both the surgeon and the anesthesiologist. The anesthesiologist should keep the surgeon posted on new anesthetic techniques, on drugs which should be given preoperatively, and on drugs which should be stopped preoperatively because of their deleterious effects when combined with anesthetic agents. The team should decide when the patient is

in optimum shape to withstand anesthesia and surgery. No patient should be accepted for elective anesthesia unless he is in the best condition obtainable. In emergency conditions, the patient should be in the best possible condition obtainable in the available time before the operation has to be undertaken.

The anesthesiologist is often faced with a situation in which an operation is being contemplated on a patient whose chances of survival are remote. In this case I adhere to Stephen's rule: "If it is the considered opinion of the several physicians concerned that a possibility exists of surgery helping the patient, the anesthesiologist has no right to deny the patient in a unilateral fashion, what help he can give."⁵

When it has been decided that the patient is in his optimum condition for anesthesia, the anesthesiologist should decide which anesthetic technique is best for that patient. The patient should be seen on the day before operation by the anesthesiologist who is going to administer his anesthesia. The type of anesthesia should be discussed. The patient should be informed of everything that will happen to him prior to induction. The anesthesiologist should write the preoperative orders. Our aim in the preoperative period is to bring a calm, adequately sedated patient to the operating room in his optimum physiologic state.

The surgeon's cooperation is vitally needed to help prevent cardiac arrest. Most surgeons realize the value of adequately preparing the patient for the proposed operation. They also realize that pushing the anesthesiologist into hasty, crash inductions and into using a second-choice, more dangerous agent because of unreasonable demands for cautery and adrenalin are not in the best interest of the patient. From experience they know that traction and manipulation of certain structures may precipitate deadly reflexes, that continuing blood loss requires blood replacement, that unreasonable demands for continuous cadaveric relaxation may lead to respiratory insufficiency, and that prolonged surgery is not in the best interest of the patient.

The anesthesiologist is in the best posi-

tion to anticipate and to prevent potential causes of cardiac arrest. He should be familiar with all the agents, techniques, and skills associated with his specialty. He should be completely familiar with the patient's status prior to induction. He should treat all patients as poor risks.

He should introduce anesthetic agents into the patient slowly and judiciously until the proper stage of anesthesia is attained. Specific agents should be used to their best advantage to provide an adequate operative field without causing an overdosage in the patient. Respiration and circulation should be monitored and properly maintained at all times by careful observation of the chest with one hand on the anesthetic bag to assist or control respiration and with the other hand monitoring a peripheral pulse. With one eye on the chest, the other eye should be on the operative site to observe the color of the blood and to anticipate reflexes, relaxation needs, fluid replacement needs, positional changes, tourniquet releases, and all the other events of an operation in progress.

Constant observation and constant anticipation of the needs of the patient and surgeon are probably the most important factors in preventing cardiac arrest. Special monitors should be employed when available and indicated. One further aid in prevention is continuous instruction to recovery-room nurses about postoperative complications which may precipitate this disaster.

Summary

Sudden cardiovascular collapse continues to be a frequent and dramatic occurrence in the operative and postoperative periods. The incidence of anesthesia-related cardiac arrest is decreasing because of better anesthetic techniques and better training of anesthesiologists, with more knowledge of the causes and prevention of the emergency. The over-all incidence of cardiac arrest has remained the same or is increasing because of the increased number of operations on poor risk patients and because of the increased number of extensive and difficult surgical procedures.

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Development and Use of Open Chest Cardiac Massage

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MAYODAN

Although cardiac arrest has been a frequent cause of death since human life began, its occurrence under anesthesia is of primary interest to us. The first reported death of an anesthetized patient occurred January 28, 1848, under chloroform anesthesia¹. Since that time these catastrophies have been more frequently reported year by year. The increase is undoubtedly due to more honest reporting, more intelligent diagnosis, the rapid increase in operative procedures, and the advancement of surgery and its ally anesthesia into previously forbidden fields of treatment. The average figure for cardiac arrest in the operating room throughout the United States is placed at about 1 in 2000 anesthetics²; however, a ratio of 1 in 804 anesthetics was reported by Waters and Gillespie in 1944³. Its occurrence, while not common, is certainly not a rarity.

The resuscitative principles necessary in the treatment of cardiac arrest have been known and published prior to 50 years ago; however, these principles, both respiratory and cardiac, have been generally used for only the past 10 to 15 years. The basic physiologic systems governing respiration and circulation have always been the main field of interest for the anesthesiologist. Each system is involved in cardiac arrest and each must be adequately resuscitated, if death is to be prevented.

Respiratory Resuscitation

Mouth-to-mouth resuscitation was the method of choice in the treatment of asphyxia prior to the year 1530. It is described in the Bible and was apparently widely practiced up to the sixteenth century, at which time it attained a vulgar connotation. It was continued for some time later by peasant midwives until the beginnings of bacteriology caused the measure to be considered dangerous. Tracheotomies were performed by European surgeons as early as the twelfth and thirteenth centuries, and in 1530 Paracelsus introduced the common fireside bellows as a means of introducing air into the lungs. In 1763 Smellie inserted a flexible tube into the throat and trachea as an original endotracheal tube. Respiratory resuscitation then seemed to enter a period not unlike the Dark Ages, in which these early methods were almost completely forgotten⁴. The common use of endotracheal tubes is only a recent innovation and mouth-to-mouth resuscitation has very recently been resurrected as an adequate means of controlling the asphyxial state.

Cardiac Resuscitation

In 1874 Schiff produced cardiac arrest with chloroform in dogs, then massaged the exposed heart and resuscitated the animal. In 1899 Niehauf made the first reported attempt to resuscitate the human heart with

manual massage⁵. This was repeated by Maag, in 1900, with some partial success. His patient lived for a period of 11 hours after manual massage and resuscitation of the heart beat. In 1902 Starling and Lane had the first successful resuscitation when, during an abdominal operation, the heart ceased to beat. By the subdiaphragmatic approach, the heart was massaged manually, the beat was restored, and the patient lived. This was repeated again in 1903 by Ingelsburg.

In 1904 Crile resuscitated the heart of a 12 year old girl in the operating room by the perfusion, under pressure, of an adrenalin solution into the brachial artery⁴. I include this case in the record despite the fact that it was not an open chest resuscitation because of the following observation made by Dr. Crile almost 60 years ago: "In regard to resuscitation of the body as a whole, the fact has not been sufficiently appreciated that the greatest and most essential difficulty is to overcome the anemia of the brain rather than the heart."⁴

Here then we have, well over 50 years ago, the essential resuscitative measures, both respiratory and circulatory, necessary to adequately reverse the course of cardiac arrest.

Up to 1945 the literature contained 143 cases of cardiac arrest with recovery in 48⁵. This closely agrees with figures published in 1959 of approximately 10,000 cases of cardiac arrest per year in the United States with a recovery rate of approximately 30 per cent⁶. To reduce this high mortality rate of approximately 70 per cent, cardiac arrest must be treated vigorously and completely with both ventilation and cardiac resuscitation within three minutes of its occurrence.

No anesthesiologist should need a lecture on ventilation. In the case of cardiac arrest, this can be accomplished by any acceptable means immediately available. One may use an endotracheal tube or a simple bag and mask or mouth-to-mouth breathing, with or without either a single or double oral airway. One hundred per cent oxygen is preferable, but the use of room air or even expired air by mouth to mouth is acceptable⁷.

Technique

In cardiac resuscitation, the *things not to do* are almost as important as those things which must be done.

THINGS NOT TO DO

1. Do not take time hoping to hear faint heart sounds or to demonstrate to everyone in the room that the patient is dead.
2. Do not change the blood pressure cuff to another arm or send for another cuff.
3. Do not send for an electrocardiogram.
4. Do not inject medication intravenously or into the heart through the chest wall.
5. Do not wait to start a blood transfusion.
6. Do not waste time striking repeated blows to the chest.
7. Do not take time to scrub or drape the operative field.

8. Do not procrastinate!

THINGS TO DO

1. *Perform a thoracotomy.*

The incision should be made between the fifth and sixth ribs, which is approximately one inch below the left areola in the male and in the inframammary crease in the female. However, *do not* take time to count ribs. Rapidly estimate the site of incision and make it. The incision should be adequate and should extend from the lateral border of the sternum to the mid-axillary line. If available, insert a rib retractor and rapidly open until sufficient exposure is obtained. If a rib retractor is not immediately available, the costal cartilage above the open intercostal space should be incised adjacent to the sternum. This will permit introduction of the hand into the chest until a rib retractor is available. In cardiac arrest, there is no bleeding and the entire procedure of opening the chest should consume no more than 30 seconds. Those vessels which are severed in the incision must eventually be secured, but this step can wait until cardiac contractions are restored and bleeding occurs. Cardiac compression must begin immediately.

2. *Start cardiac compression.*

The method of cardiac massage depends to some extent upon the relative size of the heart and the hands of the operator. A small heart can be compressed with one hand by

placing the hand under the heart and the thumb over the right side of the heart. This method is not applicable if the heart is large.

There are two satisfactory methods for compressing a large heart: (1) Use both hands, with the fingers of one hand under the heart and the fingers of the other hand over the heart; or (2) place the fingers of the right hand under the heart and compress the heart against the sternum. The rate of massage depends upon the filling of the chambers and varies from 60 to 80 per minute.

By either of the methods of compression, an arterial pressure of 80 to 100 mm. of mercury can be produced. Both ventricles should be emptied and the grip on the heart should be relaxed during diastole to permit ventricular filling. Compressing an empty heart is valueless. Extreme care should be exercised to prevent bruising or rupturing one of the cavities of the heart by excessive force.

It should be emphasized that the primary aim of effective cardiac massage is not to restore the heart beat, but rather to re-oxygenate the starved tissues, especially the brain and myocardium. If cardiac massage is ineffective because of the intact pericardium, this must be opened. Immediate pumping through the intact pericardium, however, reduces the period of anoxia for approximately 10 seconds, allowing the time necessary to open it. Sometimes the heart will begin to beat spontaneously without opening of the pericardium. If this does not occur, the pericardium should be quickly opened from apex to base in front of the left phrenic nerve, thereby avoiding injury to this nerve.

Following opening of the pericardium, the heart should be massaged immediately as before. Time should not be wasted in observing the heart until it has been massaged for several minutes. The massage then can be interrupted for 5 to 10 seconds to observe whether the heart is in standstill or ventricular fibrillation. Color and tone should be noted, but massage should never be unnecessarily interrupted.

If an adequately palpable peripheral pulse or blood pressure is not obtained, the car-

diac compression is not effective and must be improved. If after several minutes of effective massage the heart does not resume a normal beat, then continued adequate massage plus the injection of specific intracardiac drugs may be indicated. The use of 3 to 5 cc. of a 1:10,000 dilution of epinephrine injected into the right ventricle may aid in restoring an effective heart beat.

If ventricular fibrillation is occurring, it must be stopped by the use of an electric defibrillator. Immediately following the shock caused by the application of the defibrillator, manual compression should begin again. If fibrillation persists, one may have to give repeated shocks, interrupting long enough to reinstitute manual compression for several seconds. Following defibrillation, spontaneous coordinated contractions may occur, or the heart may revert to asystole. If such a standstill results, the therapy as outlined above for asystole should be initiated.

After the beat has been restored, the heart should be observed for several minutes before the chest is closed, particularly if epinephrine has been used, since this drug can precipitate ventricular fibrillation. The chest may then be closed in a routine fashion with underwater pleural drainage. If the operator is unfamiliar with this procedure or with the postoperative care of such patients, he should now seek consultation. Constant monitoring of the heart should continue, not only in the operating room but in the recovery room as well, until the patient is safely out of danger.

Advantages and Disadvantages

The advantages of open chest cardiac massage are as follows:

1. The exact status of the heart, whether in ventricular fibrillation or asystole, is easily determined. This is especially helpful in areas where cardiac monitoring instruments may not be available.

2. Injection of drugs into the heart itself can more easily be accomplished with the heart directly in view.

3. Defibrillation can be accomplished more easily and with lower voltage by the internal defibrillator.

4. The effectiveness of both drugs and the defibrillator can be more easily determined with the heart in view.

The following constitute disadvantages of the technique.

1. The extra time required to open the chest.

2. The added trauma of the thoracotomy, and its possible postoperative complications both infectious and pulmonary.

3. The excessive fatigue of the operator in direct manual compression of the heart.

Discussion

Opportunities for using the above techniques are relatively infrequent, especially for physicians who practice in smaller hospitals. In the event of sudden cardiac arrest, therefore, it would be most difficult to remember exact dosages of drugs to be used or proper settings for the defibrillator. It is suggested that in any hospital a cardiac arrest tray and a defibrillator be in constant readiness. Wall posters and brochures from the manufacturers of defibrillators are available and should be placed or posted in areas where their use will be most helpful. All members of the hospital staff should be familiar with their use and where the equipment is kept, and practice runs in the resuscitation of an individual should be held. Since time is of the essence, it is important that none be wasted when the emergency of cardiac arrest arises.

* * *

The Development and Use of External Cardiac Massage

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External cardiac massage as a method of resuscitation has been investigated and developed largely in the last four years, and is now a proven and accepted lifesaving technique. Unlike the Biblical Elijah's direct mouth-to-mouth method, cardiac resuscitation was apparently unthought of in ancient times, which is perhaps strange, as

The use of cardiac massage and ventilation to resuscitate patients suffering cardiac arrest outside the operating room is becoming more frequent. The anesthesiologist is the logical member of the hospital staff to instruct all other members of the staff in cardiac arrest arises.

Summary

Cardiac arrest is not a medical rarity; the mortality rate is still disturbingly high. The treatment consists of immediate respiratory and cardiac resuscitation. The method of open chest cardiac massage has been presented. Its immediate use with adequate ventilation should reduce the present appalling fatality rate in this condition.

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it is a simple basic maneuver requiring only the operator's two hands.

Origin and Development

The concept of external cardiac resuscitation does, however, go back over one hundred years, for in 1860 a certain Sir Benjamin Howard, during a tour of America, gave a series of demonstrations of a technique for reviving collapsed or apparently dead persons by means of sternal compression¹. It is believed that he abandoned this method following some untoward side effects pro-

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duced in an influential citizen of Edinburgh, a Mr. Houghton. The latter sustained several fractured ribs.

In 1878 Boehm, in Dorpat—now known as Tartu, Estonia—showed that manual compression of the thorax would produce striking revival of asphyxiated and poisoned cats². This appears to be the first well documented account of a form of external cardiac resuscitation.

A French journal, *La Semaine Médicale*, in 1892 carried this brief news item from Prussia:

A Method for Combatting Chloroform Collapse

In the Surgical Clinic of Professor König in Göttingen, chloroform collapse is treated by compression of the cardiac region carried out 30 to 40 times a minute while at the same time pressing on the thorax to bring about artificial expiratory movements. This compression of the heart while bringing about an emptying of the dilated and over filled right ventricle, leads effectively to the re-establishment of the circulation and respiration.

Dr. Maas, Professor König's assistant, has modified the technique by pressing much more frequently than usual. With this method he succeeded in saving two patients on whom the usual technique had failed. Here is his method for treating patients apparently dead from chloroform anesthesia:

The doctor stands to the left side of the patient and with the ball of the right thumb presses with great force between the apex of the heart and the right side of the sternum. This pressure is repeated about 120 times a minute. Meanwhile, the pupils which are always dilated will contract and an artificial carotid pulse will be felt. After a time spontaneous respiratory movements begin. One can stop pressing then and rest as long as the pupils remain contracted and respiratory movements are maintained. If the pupils begin to dilate again, continue as before until circulation and respiration are definitely restored¹.

In spite of the success obtained by these workers, their method of resuscitation did not receive widespread use.

Forty-two years later, in 1934, three members of the Department of Physiology of the Faculty of Medicine of Algiers, carried out experiments to demonstrate that abrupt, rapid, bimanual compression of the thorax would maintain a pressure of 60 to 100 mm. of mercury in dogs with cardiac arrest induced by chloroform or total occlusion of the trachea³. They further show-

ed by means of dye indicators that there was more than a pulse pressure wave: indeed, they had obtained actual flow and perfusion.

In 1957 an Oklahoma pathologist was performing a sternal marrow biopsy when he noticed that the patient suddenly became unconscious, apneic, and pulseless⁴. The doctor thereupon placed one arm under the patient's back, and with the other arm behind the patient's knees, he folded the knees against the thorax, effectively compressing it. In so doing Dr. A. H. Stone achieved a successful case of cardiac massage without incision. That same year two British anesthesiologists published their use of a similar technique in meeting this emergency during anesthesia⁵.

The following year of 1958 a young electrical engineer at Johns Hopkins noticed, during experiments on external defibrillation in dogs, that the simple mechanical effect of placing a heavy copper electrode on the dog's thorax caused a noticeable transitory rise in blood pressure⁶. From this small observation grew the now classic work of Kouwenhoven, Knickerbocker, and Jude, who described their first series of cases of external cardiac resuscitation on patients in acute circulatory deficiency. Their work appeared in July, 1960—one hundred years after the American tour of Sir Benjamin Howard.

The Hopkins team has since described a series of cases of successful resuscitation in patients with proven asystole or ventricular fibrillation⁷. Their technique has been further investigated and tried with equal success in many centers the world over, until it has become an accepted measure in most cases of acute, unexpected cardiac arrest⁸.

It is interesting to reflect on the way in which the concept of cardiac resuscitation appeared in an apparently unrelated way in several countries, in groups of workers with differing interests. There were physicians, physiologists, surgeons, electrical engineers, pathologists, and most properly anesthesiologists. Their investigations, trials, tribulations, and errors failed to crystallize until the last three to four years, despite the fundamental importance and obvious efficacy of

the method.

One cannot help but wonder how many lives might have been saved had any of the groups pursued the investigations to their logical conclusion 30, 60, or one hundred years ago. While regretting what might have been done in the past, not a few people—indeed, it could even be any of us—will have reason to be grateful that one out of the long line of investigators translated a seemingly trivial effect into a sound modern technique.

Technique

The method of external cardiac resuscitation can be described as follows: The patient is placed in the supine position, preferably on a firm base. The operator kneels by his side and applies firm repetitive pressure over the lower end of the sternum, using only the heel of one hand aided by the heel of the other applied to the back of the left hand. In the case of children pressure from one hand is usually sufficient, and in newborn or infants only the tips of two fingers applied mid-sternum are required. A rate of 60 to 80 strokes a minute is suggested in adults. The lungs must be inflated after every five cardiac compressions.

The thoracic wall of an unconscious patient is considerably less rigid than that of a conscious person, and it is possible to depress the sternum 3 to 4 cm. with each stroke. In this way the heart, which is bounded posteriorly by the vertebrae and limited laterally by the pericardium, is compressed sufficiently at each stroke to force blood into the circulation, producing a palpable peripheral pulse and a blood pressure in the range of 100 mm./Hg or better. When the pressure on the sternum is released, the heart is refilled with blood and the venous return may be assisted by raising the patient's legs.

By these simple maneuvers sufficient circulation can be maintained to assure the oxygenation of the vital centers until there is either a spontaneous recovery or until other appropriate measures such as defibrillation can be employed to treat the fundamental cause of the cardiac arrest.

It is important that pressure should be applied only over the sternum and without

undue force, so that trauma to the chest wall and underlying organs may be avoided. It is also important to ascertain that the patient has no obvious injury of the chest wall. In such cases sternal compression would only lead to further complications.

It was thought at one time that intermittent sternal compression would assure a certain degree of pulmonary ventilation. While this is true in the dog it definitely is not so in man⁹. The first International Symposium on Ventilatory and Circulatory Resuscitation, held in Stavanger, Norway, in August of last year, advocated the combination of direct mouth-to-mouth resuscitation with external cardiac massage¹. This technique presupposes the presence of two or more rescuers, though it should be possible in some instances for one person to maintain both procedures for a limited time by compressing the sternum for five strokes and then inflating the lungs.

The Symposium went on record as recommending that for the present the technique of external cardiac resuscitation be taught only to doctors, nurses, and rescue and ambulance squads. Although this policy is still subject to controversy and open for debate, one of the great advantages of the method is that it is always available and can thus be applied with no delay. The reason behind the suggestion of limiting instruction to a specialized group would seem to be to prevent the hapless victim of a simple fainting spell from sustaining possibly severe trauma at the hands of a well intentioned but overenthusiastic lay rescuer.

A recent refinement in external cardiac resuscitation may have come in the form of a relatively simple apparatus said to cost about \$15 and suitable for emergency room use which has been designed by Dr. A. W. Warltier of St. Stephen's Hospital in London¹⁰. It consists of a mechanically operated plunger which is positioned over the lower third of the sternum and can be adjusted according to the patient's build to give a measured and constant depression of the sternum. The mechanical advantage of the apparatus enables the procedure to be carried out with less fatigue to the operator, and at the same time offers less risk of

trauma, since correct position and a constant amount of pressure is administered with each stroke.

The author wishes to thank his wife, Dr. Elisabeth J. Fox, Fellow in Physiology, Cardiovascular Training Program (HTS-5392), Bowman Gray School of Medicine, for her assistance in the preparation of this paper.

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Complications of Closed Chest Cardiac Massage

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Closed chest cardiac massage has proved itself as an effective technique, and is the method of choice in cardiac resuscitation until a more efficient system is designed. In conjunction with mouth-to-mouth or mouth-to-nose ventilation, closed chest cardiac massage is unsurpassed so far as simplicity and reliability are concerned. These are methods which lend themselves admirably to nonmedical and paramedical personnel, usually the first to appear at the scene of a catastrophe. The techniques are taught easily to Boy Scouts, firemen, rescue squads, policemen, ambulance attendants, and housewives. They have rules and criteria of efficiency that can be expressed in such phrases as "See the chest expand," or "Feel the pulse in the neck." These are terms which any layman, with minimal training, can understand. No art, skill, or science is required.

Closed chest cardiac massage is an old technique. So are most good techniques. It was tested and kept alive for many years,

not by a physician but by an engineer, Dr. William B. Kouwenhoven. Finally, physicians grasped the significance of this method of resuscitation and helped spread its benefits throughout the world.

In many respects the story of anesthesia is similar to that of closed chest cardiac massage. Anesthesia was "almost" discovered many times. Nitrous oxide and ether were known long before anesthesia was recognized. The benefits of anesthesia spread like wildfire. Soon, however, it became recognized that anesthesia was not without hazard, and steps were taken to minimize its dangers. The same is true of closed chest cardiac massage. We have recognized its benefits. Now we must consider its hazards and begin to weigh them in terms of the benefits derived.

We know that a certain force against the chest wall is required to produce effective circulation. We know that in elderly and fragile persons, the required force may be more than enough to fracture many ribs—a small price to pay if cardiac action is resumed. In patients in congestive heart failure, livers have been ruptured. Spleens have

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been ruptured, and perhaps we will hear of ruptured diaphragms or bladders. Some complications are inevitable, but are all inevitable?

In our experience we have seen some of these complications. We have had occasion to evaluate the efficiency of closed chest cardiac massage in the laboratory, in operating rooms, and on hospital wards. It has become apparent that individuals vary considerably in the efficiency with which they carry out this method of resuscitation. Unfortunately, in most circumstances in which artificial circulation is ineffective, the operator resorts to increased muscular effort rather than a careful appraisal of the location of the heart.

In one situation, a hitherto unreported complication was observed. Closed chest massage was being carried out in what seemed to be an unusually low position over the sternum, yet an observer reported the presence of a strong femoral pulse, suggesting an effective artificial circulation. Another observer noted the absence of a carotid pulse and suggested moving to a point higher on the sternum. When the site of massage was changed, a prominent carotid pulse was felt. In all probability the femoral pulse was a "shock wave" traveling down the aorta.

Another little noted complication is that of forcing gastric contents into the pharynx where they are aspirated into the lung. This aspiration may be entirely "silent" and go unnoticed even during the performance of mouth-to-mouth ventilation. Nevertheless, it has been seen at least three times in our experience, and endotracheal suction has yielded generous quantities of gastric contents. Whether or not closed chest cardiac massage was being performed too low is not known, but this is a possibility.

With closed chest cardiac massage, the techniques of external defibrillation and the application of external pacemakers have received considerable attention. Unfortunately, the publicity attending the effectiveness of these electrical methods seems to have led to errors in their use. Somehow, physicians seem to have acquired the notion that one or both of these devices has to be

employed, and we have seen some who were anxious to apply a pacemaker to a heart in fibrillation or a defibrillator to a heart in standstill. Too, there seems to be a blind faith in the effectiveness of these electrical tools, when it is quite well known that neither is effective unless artificial circulation has restored adequate oxygenation to an ineffective myocardium.

Another technique which has received considerable attention in connection with closed chest cardiac massage is that of mouth-to-mouth breathing. Although this method may be very effective in moving air in and out of the lungs, it is by no means as efficient in providing total-body oxygenation as is the ventilation of the lungs with pure oxygen. Unfortunately, and presumably because of this association of closed chest cardiac massage with mouth-to-mouth breathing, we have seen victims of cardiac arrest being ventilated by mouth when 100 per cent oxygen and means of administering it were within arm's reach.

Conclusion

There is danger in turning over simple techniques to the medical profession. With a little thought, many of us will recognize that the treatment of asphyxiation, drowning, and snake bite are handled better by the fireman or Boy Scout than by the average physician. The same may become true in cardiac and respiratory resuscitation.

Simple techniques insult the intelligence of physicians. How many of you who hear or read this article have evaluated closed chest massage? How many have read or remembered the exact placement of the hands, so carefully described and emphasized in the original articles? How many have practiced closed chest massage with another person evaluating critically the efficiency of this pressure on the chest? In our fortunately limited experience, it makes a lot of difference who presses on the chest where.

Closed chest cardiac massage is a good method of resuscitation. It is a simple method. Let us not see it die because of lack of interest on the part of physicians. This would be the most serious complication of all.

Clinical Report on Mebutamate - A New Antihypertensive Agent

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As the only physicians within a 20 mile radius, it is imperative that we provide the best medical care possible. Laboratory and surgical facilities are a must in such a geographical location, but of equal importance is the necessity of keeping abreast with medical advances and evaluating new forms of therapy. This in no way implies that we can, or have any desire to, investigate every new form of therapy introduced, but it does imply that we are obligated to our patients to investigate new drugs which have already shown some promise of providing better therapeutic results.

Favorable reports¹⁻⁷ on a recently introduced antihypertensive drug,⁸⁻¹² mebutamate*, led to a clinical evaluation of the drug in the treatment of hypertensive patients seen at the Griffis Clinic.

Clinical Study

A total of 45 patients, 26 women and 19 men, ranging in age from 30 to 91 years (average, 59.9 years) were included in the study.

The diagnoses made were as follows: essential hypertension, 32 patients; arteriosclerotic heart disease, 13. Thirteen patients were asymptomatic when mebutamate therapy was instituted. The remaining 32 had one or more of the following symptoms; dizziness, headache, nuchal headache, weakness, vertigo, blurring of vision, buzzing in the ears, hemoptysis, ankle edema, pain in joints, chest pain, extreme anxiety, nervousness, slight left-sided paresis, and dyspnea. The duration of symptoms ranged from two weeks to 10 years, with an average duration of two years.

Seventeen of the 45 patients had received therapy previously (diuretic agent, 2; reserpine and a diuretic, 10; digitalis, reserpine, and a diuretic, 1; chlorthalidone, 1; ver-

atrum compound, 1; and reserpine, 2. Ten of the 17 patients were improved on previous therapy; 7 were not. Twenty-eight patients had not received any form of treatment previously.

At the onset of the present study 4 patients were edematous (1 plus edema, 1; and 2 plus edema, 3).

The hypertension was mild (diastolic pressure 91 to 100) in 27; moderate (diastolic pressure, 101 to 119) in 8; and severe (diastolic pressure, 120 or more) in 4. Five patients had systolic hypertension only (the diastolic pressure was 90 mm. Hg. or less). One patient whose blood pressure was 130 systolic, 70 diastolic was included in the study because of the side effects that were occurring with the use of previous therapy. This patient was included to determine whether or not the blood pressure level could be maintained with another drug and without side effects. The average pretreatment blood pressure for the 45 patients was 199 systolic, 102 diastolic.

Method

The initial treatment for 37 of the 45 patients was mebutamate; for 8 patients it was mebutamate combined with hydrochlorothiazide. The initial dosage was either three or four tablets (300 mg. of mebutamate or 300 mg. of mebutamate combined with 25 mg. of hydrochlorothiazide in each tablet) daily. The dosage was increased or decreased as determined by patient response.

Concomitant therapy was prescribed for 13 of the 45 patients and included one or more of the following drugs: digitalis, a diuretic agent, quinidine, pentaerythritol tetranitrate, chlorpropamide, tolbutamide, and triparanol.

Duration of therapy ranged from 4 to 12 weeks and averaged 8 weeks. The patients were seen at intervals of one or two weeks. The blood pressure was recorded, the pa-

From Griffis Clinic, Denton, North Carolina.

*CAPLATM—Supplied by Wallace Laboratories, Cranbury, New Jersey.

tient was weighed, and any effects from the medication were noted at each visit.

Results

Of the 45 patients included in this study, 41 (91 per cent) responded to mebutamate therapy.

Six patients obtained a reduction in systolic pressure and 35 in both systolic and diastolic pressure. In 34 cases the diastolic pressure was reduced to normotensive levels (90 or less).

Mild hypertension

In 24 of the 27 patients who had mild hypertension (diastolic pressure, 91 to 100), the diastolic pressure was reduced to normotensive levels (90 mm. Hg. or less). Nineteen of the 24 received only mebutamate during the entire therapeutic period, 3 received mebutamate initially and later were given the mebutamate-hydrochlorothiazide combination, and 2 received the combination throughout the entire therapeutic period.

The remaining 3 patients did not obtain reductions in diastolic pressure, but 2 of the 3 did obtain reductions in systolic pressure of 10 and 60 mm. of mercury, respectively.

The average pretreatment blood pressure reading for the 27 patients was 190 systolic, 97 diastolic; the average posttreatment reading was 163 systolic, 86 diastolic: an average reduction in systolic pressure of 27 mm of mercury and an average reduction in diastolic pressure of 11 mm of mercury.

Moderate hypertension

In 7 of the 8 patients who had moderate hypertension (diastolic pressure, 101 to 119), the diastolic pressure was reduced to normotensive levels. Four of the 7 received only mebutamate; 3 of the 7 received the mebutamate-hydrochlorothiazide combination. The remaining patient in this group obtained a reduction in systolic pressure of 26 mm. of mercury; the diastolic pressure was unchanged. The average pretreatment blood pressure reading for the 8 patients was 214/110; the average posttreatment reading was 161/86; a reduction in systolic pressure of 53 mm. of mercury and a reduction in diastolic pressure of 24 mm. of mercury.

Severe hypertension

In 2 of the 4 patients who had severe hypertension (diastolic pressure 120 mm. Hg. or more), the diastolic pressure was reduced to normal on the mebutamate-hydrochlorothiazide combination (from 240/140 to 185/90 and from 260/120 to 180/90). The remaining 2 patients obtained reduction in both the systolic and diastolic pressures (from 220/120 to 200/100 and from 240/120 to 190/100).

The average pretreatment blood pressure reading for this group was 240/125; the average blood pressure reading after treatment was 184/95 mm. of mercury: a reduction in systolic pressure of 56 mm. of mercury and an average reduction in diastolic pressure of 30 mm of mercury.

Systolic hypertension

Of the 5 patients who had systolic hypertension (systolic pressure over 140; diastolic, 90 or less), the diastolic pressure was unchanged in 4 and reduced from 90 to 70 in 1. The systolic pressure was reduced 20 mm. of mercury in 3 (to normotensive level in 1 of the 3), and increased 15 mm of mercury in 2.

In the one patient who had an initial blood pressure of 130/70 on previous treatment, there was an increase in blood pressure of 10 mm of mercury in both the systolic and diastolic pressure, but the blood pressure was not increased above normal (140/80).

Comparison with Previous Therapy

A comparison of the results of previous and present treatment in 17 patients is presented in table 1. Of the 10 patients who improved on previous therapy, 6 obtained marked further improvement in both systolic and diastolic pressure on mebutamate therapy, and 1 whose diastolic pressure was normal obtained further improvement in systolic pressure. Two patients did not respond to mebutamate. The one patient who had a normal blood pressure initially and who was included in the study because of side effects associated with previous medication had an increase in both the systolic and diastolic pressure, but not above

Table 1
Comparison of Results of Previous and Present Therapy

Previous Therapy*	Results of Previous Therapy†	Present Therapy‡	Final BP on Previous Therapy	Final BP on Present Therapy	Difference in BP Before and After Treatment
R + D	NI	Mebutamate	200/100	170/90	30/10
D	I	Mebutamate	160/90	140/70	20/20
R + D	I	Mebutamate	195/100	160/90	35/10
R + D	I	Mebutamate	130/70§	140/80	+ 10/+ 10
R + D	I	Mebutamate	180/100	160/80	20/20
R + D	NI	Mebutamate	190/100	155/90	35/10
D	NI	Mebutamate	180/100	170/90	10/10
R + D	I	Mebutamate	180/95	170/90	10/5
R + D	I	Mebutamate	160/95	150/80	10/15
R + D	I	M;M + HD.	170/90	150/90	20/0
R + D	NI	M;M + HD.	210/100	150/100	60/0
R + D	I	M;M + HD.	160/90	175/90	+ 15/0
Veratrum	NI	M;M + HD.	180/90	160/90	20/0
Chlorthalidone	I	M;M + HD.	160/90	175/90	+ 15/0
R + D	I	Mebutamate	200/110	170/90	30/20
R	NI	Mebutamate	200/110	140/90	60/20
R	NI	M + HD	230/110	158/90	72/20

* R—reserpine; D—diuretic agent

† I—improved; NI—not improved

‡ M—mebutamate; HD—hydrochlorothiazide

§ Patient had side effects (dizziness and headaches) on previous therapy

the normotensive level. This patient improved in respect to the absence of side effects on mebutamate.

Of the 7 patients who had not improved on previous therapy, 5 obtained marked improvement in both the systolic and diastolic pressure on mebutamate. Two patients obtained good improvement in systolic pressure, but the diastolic pressure (normal in 1) was unchanged.

Side Effects

Side effects occurred in 23 patients, and included drowsiness or dullness, headache, dizziness, and weakness. In a number of patients, these were the presenting symptoms before the institution of mebutamate therapy. The majority of the patients in whom the side effects occurred were in the older age group, the late 50's to 91 years of age. The side effects of drowsiness and dizziness which occur with overdosage can certainly be considered as built-in safety factors, as they indicate to the physician that the patient should be receiving smaller amounts of

the drug. It was discovered that one tablet four times daily was entirely too high a dosage for these elderly patients and that they required less medication to obtain results. It also was observed that reducing the initial dosage resulted in freedom from these effects in most instances. A few patients did remain drowsy. In no instance were the side effects severe, and it was not necessary to discontinue medication.

Conclusions

Mebutamate alone and mebutamate in combination with hydrochlorothiazide were found to be effective antihypertensive drugs. Mebutamate used alone is effective in the mild and moderate cases of hypertension, and mebutamate in combination with hydrochlorothiazide is effective in the more severe cases or those refractory to mebutamate alone. Additional improvement frequently can be obtained in cases in which other drugs are no longer effective, and in cases which are refractory to other treatment.

Although mebutamate alone or in combination was effective in all age groups, it was found that patients in the older age group were much more sensitive to the drug and required less medication to obtain the desired results. Side effects were few and mild and in many instances probably could have been avoided, as they appeared to occur with overdosage and were eliminated in most instances by reducing the amount of drug prescribed.

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A Review of North Carolina's Licensed Nursing Homes

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Long term illness has been characterized as including those diseases, defects, and disabilities which require professional medical care over a prolonged period of time and which, in addition, may require that the patient receive specialized services in chronic disease hospitals, rehabilitation centers, nursing homes, and other types of community health facilities.

Owing to a variety of factors, interest has been focused upon the licensed nursing homes of North Carolina during the past 18 to 24 months. Of particular concern to the public health agencies of the state was the transfer of responsibility for the licensure of nursing homes from the Medical Care Commission to the North Carolina State

Board of Health by the 1961 General Assembly.

One of the major objectives of this transfer would seem to have been a conviction that the level of patient care in nursing homes is not only a function of the physical plant and its operation, but also is influenced by the knowledge, skill, and abilities of the staff nurses, physical therapists, recreational directors, dietitians, and administrators, who supply the basic ingredients in the delivered product known as "Patient Care."

The formulation of administrative plans to improve services in nursing homes should be undertaken with full knowledge of the characteristics of the patients to be served and the resources of the nursing homes. To this end the Department of Public Health Administration of the University of North Carolina School of Public Health was asked to develop recommendations for improving

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nursing home care in the area of physical therapy.

It was determined that, because of the paucity of data concerning the characteristics of patients in the licensed nursing homes of North Carolina, a complete census of the patients should be obtained. With the cooperation of the Nursing Home Operators Association, the North Carolina State Board of Health, and local health departments, this census was completed in a single day in late January, 1962, and revealed that 1093 patients were then receiving care in the 37 licensed nursing homes.

In order to facilitate the rapid, accurate tabulation of identifying information on these 1093 patients, a minimum of facts about each individual was collected incidental to the census. It was determined that the typical patient at that time was 75 years of age or older, was a female, was a bed patient all or a major portion of the time, and had been a resident of the home for one to five years.

To provide the more detailed information required for program planning, 12.5 per cent of the patients were selected in such a fashion as to form a representative sample of the total group, and included some patients from each of the 37 homes. This sample, numbering 121 patients, was used for the collection of much more detailed information concerning basic characteristics, physical status, and other factors important in determining the level and extent of needed physical therapy services.

Approximately 80 different items of information were collected on each of the patients who served in the study group. The complete tabulation and review of these data will require a detailed analysis which is now in process. It is now possible to present only a few of the more important preliminary findings. Recommendations concerning the type of program which will improve physical therapy services in the homes must await the availability of full and complete data from the survey.

Age, Sex and Marital Status

Table 1 shows the age distribution of the patients. In common with nursing home populations elsewhere in the United States,

Table 1

Age (years)	Per Cent
1-44	1
45-64	12
65-69	6
70-74	15
75-79	21
80-84	22
85-90	14
90+	9

the group is heavily weighted in terms of the older population. One-fourth of the patients were past the age of 80 and 80 per cent of the total were 70 years of age or older. The oldest patient was 102 and was still walking with help and feeding herself.

The nursing home population of North Carolina again parallels the national age-sex picture in that women comprised the larger proportion of the older age group. Of the total group, 38 per cent were male and 62 per cent female. Of those under 45 years of age, 45 per cent were male and 55 per cent were female. Of those past 85, 76 per cent were female and only 24 per cent were male. (See table 2).

Table 2
Sex Distribution

	Per Cent
Male	38
Female	62

From the sample population it was determined that 17 per cent of the patients had never been married, 66 per cent were widowed, 4 per cent were divorced, and only 13 per cent married at the present time.

County of Residence

Nursing homes generally draw upon the immediate locality for their patient loads, as shown by the finding that 58 per cent of the patients were confined in their home counties and 24 per cent were from counties immediately adjacent to the one in which the institutions were located. Only 8 per cent of the patients were regarded as being from out of state (see table 3).

One must observe that since the 37 nursing homes are concentrated in 25 counties of the state and since 82 per cent of their patients come from these same or

Table 3
Usual County of Residence

	Per Cent
Same as nursing home	58
Adjacent to nursing home	24
Elsewhere within state	10
Out of state	8
Unknown	0

nearby counties, it seems logical that long-term patients in those counties without nursing homes must be receiving care in other types of long-term care facilities, probably boarding homes for the aging.

Immediate Prior Residence

The patients studied were found to have come directly to the nursing home from one of two main sources, almost equal in number; either a private dwelling (42 per cent) or a general hospital (37 per cent). Another segment (20 per cent of the total) had come from another nursing home, a boarding home, a mental institution, or some other long-term care facility. This is shown in table 4.

Table 4
Immediate Prior Residence

	Per Cent
Own home	{ 42
Relative's home	
Other private dwelling	
General hospital	37
Mental hospital	1
Licensed nursing home	{ 19
Other facility	
Unknown	1

Reason for Admission

The necessity for admission to the nursing home can, in part, be related to the findings concerning marital status. Thirty-three per cent of the patients had lived either alone or with a paid companion until it was no longer possible to maintain an independent household. Forty-six per cent were admitted because relatives with whom they were living were no longer able to provide the needed care. Data indicate that most of this group had resided with married children. The remaining 21 per cent were admitted for various reasons including unhappiness in another institution, inability

Table 5
Reason for Admission

	Per Cent
Unable to live alone	33
Family unable to care for	46
Financial considerations	3
Unhappy in previous nursing home	} 18
Special facilities	
Closer to usual home	
Unknown	

to continue paying for care in a general hospital, and a variety of miscellaneous reasons.

Source of Payment

Valid information with regard to source of payment for individual patients was difficult to obtain. It was generally determined that 63 per cent were utilizing personal or family resources to meet the major costs of their nursing home care, with an additional 13 per cent supplementing some other source with personal or family funds.

Major source of payment was the welfare department in 26 per cent of the patients, with direct vendor payments from the Veterans Administration recorded for 3 per cent (see table 6).

Table 6
Major Source of Payment

	Per Cent
Personal or family	63
Medical insurance	0
Social security	6
Public assistance	26
V. A. medical care	3
Compensation	0
O. V. R.	0
Other (Pensions)	2

The role of Social Security in financing nursing home care was difficult to picture clearly as the families often took charge of these funds. It was established that 17 per cent of the patients were receiving regular Social Security benefits, although the amount of the support could not be determined. It was possible to establish that for 6 per cent of the patients the Social Security benefit was the major source of financial support. It may also be noted that 7 per cent of the patients were receiving both Social Security and public welfare aid, in-

dicating a very low level of Social Security benefit.

It is also possible to report that as high as 66 per cent of patients in four of the 37 homes were recipients of public welfare payments. Four homes reported having no recipients of public welfare payments among their patients, and four as having only one.

Physical Condition

Definitive information concerning diagnostic categories was difficult to obtain, owing to a lack of uniformity in recording various diseases, defects, and disabilities. It was possible to make certain observations concerning the physical status of patients.

The question of bladder and bowel continence is of particular concern to all those dealing with long-term patients. It was found that half of the patients surveyed had complete bowel and bladder control, 30 per cent lacked control of bladder and bowel, and 13-18 per cent occasionally lacked control of one or the other. Eleven per cent of the patients were catheterized routinely.

Forty-three per cent had been seen by a physician within one month of the time the data were collected, 49 per cent had been seen in from one to six months, and of the remaining the majority had been seen from six months to one year prior to the survey visit.

Medical care in the majority of homes was provided by private local physicians, although three homes have a medical staff who see most of the patients. Other homes have a physician designated as available for emergency situations which may arise when other physicians are not available. It should be noted that some patients are seen on a regularly scheduled basis by their personal physicians, others only as changes in their physical condition may warrant. There was evidence that telephone consultations between the nursing home administrator or nurse and the physician were not infrequent.

Public Health Approach to Nursing Home Care

If basic public health concepts are to be applied to the nursing home patient, it seems evident that emphasis must be on the

prevention of advanced disability and complications arising from the primary long-term illness, and upon *restoration* of the patient to the point where he is able to meet such personal needs as eating, bathing, dressing, toilet care, and the like.

This emphasis on prevention of disability and restoration to daily living represents the particular competence which public health agencies can bring to the general task of licensure and supervision of long-term care facilities.

Data from the survey are not definitive in terms of the extent to which patients have developed complications of their primary diseases or defects. It was possible to measure the extent to which patients were able to care for themselves as well as to make some decisions relative to the factors which appear to be blocking their attainment of a maximum level of self-care.

At the moment, for example, it appears that only about 10 per cent of nursing home patients are able to meet their own personal needs adequately. Regarding the 90 per cent who are not now able to do so, an attempt was made to classify the factor limiting self-care according to the following criteria:

1. The patient's physical condition.
2. Deficiencies in the physical plant of the nursing home (lack of space, facilities or apparatus).
3. Limitations in the interest, knowledge, or resources of the nursing home staff.

The largest single limiting factor by far was the physical condition of the patients, in that over 75 per cent had physical or mental conditions which made self-care impractical. In a high percentage of cases, loss of visual acuity, senile cataracts, or other visual conditions made self-care impossible or unsafe. Another group included patients with advanced malignant conditions for whom the prognosis generally was quite poor. The mental condition was felt to be an important limiting factor in 60 per cent of the patients, as judged by the patients' ability to cooperate, to follow directions, to carry out procedures and to recall recent events and instructions.

The resources of the staff of the nursing home was felt to be a major limiting factor in approximately 25 per cent of cases. In

some instances, this was a simple lack of time or manpower to provide the needed care. In a number of cases, however, it appeared that the concept of "nursing" held by the staff was one of "doing for and taking care of" the patients. This meant that every effort was made to see that the patient did little for himself. It is interesting to speculate as to how these attitudes are influenced by the fact that generally higher monthly rates are charged for those patients who receive more personal care.

Objectivity requires that considerable stress be placed on the finding that in some instances the staff would be interested in promoting a high level of self-care only to have the patients, and some physicians, expect that nursing home care should include as little actual effort on the part of the patient as possible. In four homes it was observed that "sitters" are privately employed to remain constantly at the bedside of certain patients to feed, dress, and bathe them, and to provide an entire range of personal service.

Some instances were recorded in which the physicians had written orders for patients to be gotten out of bed daily in the interest of trying to preserve maximum function of remaining physical capabilities. This order all too often was carried out by having several members of the nursing home staff lift the patient from the bed, gently deposit him in a wheel chair, and then later reverse the process. It seems likely that this patient was gotten out of bed each day, but without having a single joint moved, without weight-bearing, or without any muscular effort on his part.

In addition to staff capabilities, it was noted that in a number of instances some additional physical resources such as tubs for hot baths, apparatus to aid in the transfer of patients from bed to chair, walkers, canes, crutches, and the like would be required in order to institute a realistic program of physical restoration.

Physical Therapy Needs of Patients

While detailed data concerning the specific physical therapy modalities needed to benefit the admittedly small percentage of patients with potential for restoration must await final report, preliminary review of data indicates that generally patients would benefit materially from the less complicated therapeutic procedures. Simple exercises, positioning in bed and chair, transfer activities, hot tub baths, and less complex methods of gait-training encompass the physical therapy needs of the majority of patients.

It is significant that most of these measures fall within the category of procedures which can be taught by the physical therapist to the nursing personnel actually responsible for providing care. This suggests that emphasis should be placed on the development of plans which will enable nursing personnel to increase their knowledge, skill, and understanding of simple restorative techniques from the professional armanentarium of the physical therapist.

Summary

A preliminary report of data concerning the characteristics of patients in licensed nursing homes in North Carolina has been presented. The final report will be used as the basis for recommendations to be used as guides in developing programs to improve services in the professional area of physical therapy.

Data reveal that the nursing home patient population is heavily weighted in terms of older, female, widowed patients, many of whom display little potential for restorative services, owing to their physical conditions. Revealed was the need to improve the knowledge, skills, abilities, and attitudes of nursing home personnel concerning the less sophisticated physical therapy procedures, which would benefit a significant number of patients now receiving care in licensed nursing homes.

Abitylguanide (ABOB) in Treating Herpes Zoster

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Studies in Sweden by Melander¹ demonstrated the activity of N¹, N¹-anhydrobis-(B-hydroxyethyl) biguanide hydrochloride (ABOB)* in experimentally-induced influenza in mice. Subsequent clinical studies by Sjöberg² in 1000 cases indicated the relative safety of the compound and appeared to support the experimental findings in influenza.

Clinical trials of ABOB in other viral infections, including herpes zoster, followed. Schersten³ treated 26 patients with herpes zoster, and using a dosage of 100-200 mg. given three times daily for 6-10 days obtained very satisfactory results in 21 (80 per cent). After two days of treatment he observed that pain usually disappeared, the temperature became normal, and propagation ceased, but he cautioned that stopping treatment at this time was premature. These favorable results led me to evaluate ABOB further in the treatment of herpes zoster. The report that follows summarizes one year's experience with the drug in 19 patients.

Material and Method

Four men and 15 women were treated. Eight (42 per cent) were 60 years of age or older, 2 were in their 50's, 3 in their 40's, 5 in their 20's, and 1 was 12.

Seven patients were seen one to three days after the characteristic vesicular lesions had appeared; 4 were seen four to five days after; 6, seven days after; and 1, 10 days after. All but 2 patients also complained of pain.

Three patients had had previous episodes of herpes zoster in the same sites as at present. Two had received antibiotics and vaccinations for smallpox respectively, without benefit. The remaining patient was treated for postherpetic neuralgia of one year's duration.

*ABOB was supplied for investigational use through the courtesy of Mr. J. W. Harper, Smith Kline & French Laboratories, Philadelphia, Pennsylvania.

In all but 2 patients ABOB was given orally in a dosage of 200 mg. three times daily. The exceptions—the 12 year old patient and a slight, elderly woman (case 17)—took 200 mg. twice a day. Seven received the drug from seven to nine days; 6 from 10 to 11 days; 5 from 12 to 14 days; and 1, 18 days. Except for 1 patient who was given codeine to relieve severe pain, the patients received no other drugs concomitantly.

Results

Individual patient responses are included in the following case summaries:

Case 1: A 65 year old white woman weighing 135 pounds presented vesicular lesions on the left side of the abdomen, present for one week. She also complained of pain radiating to the left groin. She had had herpes zoster, with residual scars, in the same area 10 years previously. ABOB was started January 9, 1961. The lesions were crusted and the pain was gone on January 11. The crust was virtually gone by January 23. The area was clear and the patient was discharged on January 27 with no residual pain. There were no side effects.

Case 2: A 54 year old white woman weighing 170 pounds was seen because of marked pain of the right leg, of one week's duration. Vesicular lesions covered the entire lateral aspect of the leg from thigh to knee. ABOB was begun on February 20, 1961. On February 22 she reported that the leg was "not as sore," and no new lesions had appeared. The lesions were almost all dried and crusted on February 24. Pain and soreness were reported absent on February 26. The patient was discharged on March 6.

Case 3: A 20 year old white man weighing 150 pounds presented vesicles and erythema on the right side of the face and cervical adenopathy of four days' duration. He had had intramuscular injections of penicillin twice, and was taking Panalba. The lesions were spreading. The antibiotics were stopped and ABOB was started on March 1, 1961. On March 4 there was no pain or swelling. The lesions were crusted on March 6, but adenopathy remained. On March 10 the patient was discharged with his face clear of rash and only slight residual adenopathy remaining.

Case 4: A 50 year old white woman weighing 150 pounds was seen because of hemorrhagic

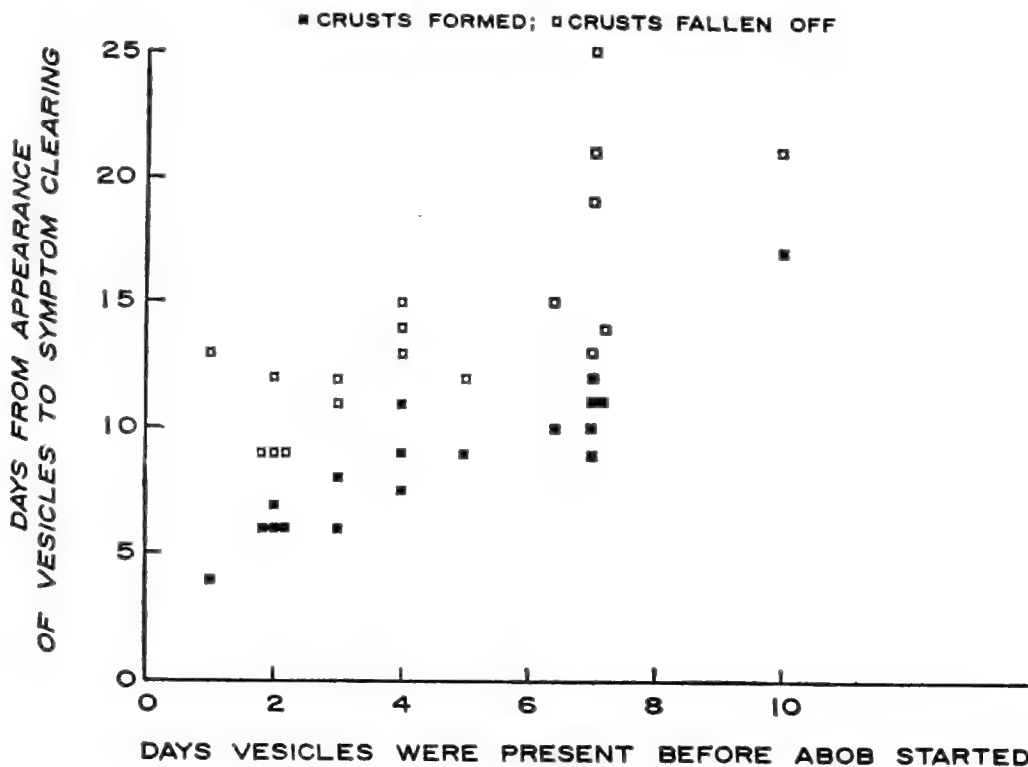


Fig. 1. Course of herpes zoster with ABOB therapy.

vesicles over a 5 cm. area of the left jaw with submandibular adenopathy of four days' duration. ABOB was begun on May 8, 1961. No change was noted on May 11, but the pain was reported "a little less" on May 12. On May 15, lesions were flat, with only a few crusts remaining. The area was completely healed and there was no residual pain on May 18.

Case 5: A 48 year old white woman weighing 135 pounds presented vesicles on the lateral aspect of the left leg from hip to knee and inguinal adenopathy of five days' duration. ABOB was started May 19, 1961. A week later the patient reported by phone that the area was healed and that she was free of pain.

Case 6: A 45 year old white woman weighing 120 pounds had lesions on the left hip of two days' duration. She also complained of considerable pain in the left lower portion of the back, radiating to the left hip. ABOB was begun on June 2, 1961. The vesicles were covered with dry crusts on June 7, when the patient reported "a little pain." A few dry crusts remained on June 12. The area was well healed and the patient was discharged on June 15 without residual pain.

Case 7: A 70 year old white woman (weight 165 pounds) had had severe herpes zoster from the left hip to knee for four days. She was in severe pain. ABOB was started July 13, 1961. On July 24 the areas were crusted and the patient was discharged without pain.

Case 8: A 30 year old white woman weighing 135 pounds had a 4-cm. area of herpes zoster on the posterior aspect of the left thigh which had been present for two days. The area was crusted after four days of treatment with ABOB. The patient was advised to continue the treatment for three more days.

Case 9: A 62 year old white woman (weight 126 pounds) was hospitalized because of pain in the right upper quadrant of the abdomen of one week's duration. A roentgenogram of the gallbladder was negative. Vesicles appeared from the back to the center of the abdomen two days later. Treatment with ABOB was instituted and the lesions healed in seven days, but the pain continued. ABOB was continued for three more days, but the patient had residual pain upon leaving the hospital.

Case 10: A 45 year old white man (weight 150 pounds) presented a palm-sized area of erythema and vesicles on the right upper part of the back, present for one week. ABOB was started on September 7, 1961. On September 11 there was considerably less erythema and swelling, and the patient reported "no pain now." A 3-cm. area of erythema remained on September 15.

Case 11: A 65 year old white man (weight 180 pounds) had had herpes zoster of the right flank for three days. ABOB was started on September 5, 1961. On September 8 there was no pain and

the lesions were drying. The drug was continued for four additional days.

Case 12: A 26 year old white woman (weight 125 pounds) had had herpes zoster of the medial aspect of the right knee and lower part of the leg for one week. ABOB was begun on September 13, 1961. The lesions were flat and the crusts were coming off on September 21. She was discharged on September 25.

Case 13: A 60 year old white man (weight 160 pounds) presented severe herpes zoster of the lower middle part of the back extending across the abdomen to the groin, of one week's duration. Treatment with ABOB was started on September 22, 1961. On September 28 the area was flat and the crusts were beginning to fall off. Swelling developed in the right lower part of the abdomen at this time, evidently due to loss of muscle tone (a gastrointestinal series was negative). Residual pain continued.

Case 14: A 12 year old white girl weighing 80 pounds had had pain and vesicles on the lateral aspect of the left thigh for three days. On October 18, 1961, ABOB was started in a dosage of 200 mg. twice daily. On October 23 the lesions were flat and crusted and surrounded by slight erythema. There was no pain. On October 27 the crusts had fallen from half the lesions. The patient was discharged with no pain.

Case 15: A 66 year old white woman (weight 143 pounds) had had pain in the left portion of the abdomen radiating from upper left part of the back for 10 days. There was a 5 cm. linear area of erythema and vesicles extending from the mid-line in the center of the back to the left groin. Pain was severe, requiring codeine. ABOB was started on October 24, 1961, and continued through November 4. On November 1 all lesions were flat and some crusts were forming. The pain continues, but the lesions are healed.

Case 16: A 62 year old white woman (weight 148 pounds) had had herpes zoster from the upper right part of the back to the center of the chest one year previously. Scars remained. She was referred because of continued pain. There was no change after 10 days of treatment with ABOB, prescribed in the event that the herpes zoster virus was still viable. The result was classified as poor.

Case 17: A 63 year old white woman (weight 100 pounds) presented pain and vesicles from the center of the back to the pubic region, of one week's duration. Treatment with ABOB, 200 mg. given twice daily, was started November 3, 1961. On November 10 a fine crust remained. There was no pain, but the affected area was sensitive to touch. The drug was continued three more days, and the patient was discharged November 14. There was no residual pain.

Case 18: A 26 year old white woman (weight 128 pounds) suffered a third recurrence of herpes zoster in the area of scar on the medial aspect of the left ankle. Previous episodes in 1956 and 1958 had been accompanied by chills and fever, and she was given antibiotics. The scar resulted from a burn in childhood. The patient presented a herpetic area measuring 1½ cm. at the site of the scar of 24 hours' duration. Left inguinal adenopathy and pain were also present. The temperature was 100 F.

ABOB was begun on November 6, 1961. On November 9 the lesions were beginning to dry and the pain had lessened. On November 13 there was no pain. Some lesions contained purulent fluid. The temperature was 99 F. On November 16 the area was drained and cultures of fluid showed a concomitant *Staphylococcus aureus* infection. On November 18 the area was dry and the patient was discharged. It is thought that the virus of herpes zoster had remained in the affected area ever since the patient's first attack.

Case 19: A 30 year old white woman (weight 125 pounds) had a history of herpes zoster on the lateral aspect of the left thigh at intervals for the past 10 years. She had previously received 10 small pox vaccinations without benefit. The present episode was marked by an erythematous, vesicular area measuring 5 cm. on the lateral aspect of the left thigh, with inguinal adenopathy. Pain was felt in the lower part of the leg. ABOB was begun on November 20, 1961. On November 24 the lesions were flat, but erythema remained. On November 27 the area was dry, and the patient was discharged. Here again the virus of herpes zoster seems to be remaining in the tissues over a long period of time.

Interpreting the results of treatment in herpes zoster is difficult because the course of the disease can vary considerably. Ordinarily, according to one authority⁴, crusts form within 10 to 12 days and fall off within two to three weeks. However, in elderly patients, who are well represented in the present study, the infection is generally more severe and its duration much longer.

With these reference points in mind, we can see from the summaries that crust formation during treatment with ABOB occurred from 4 to 17 days after the vesicles first appeared. It is interesting to note that when the drug was started soon after the vesicles appeared—that is, within two to three days—and before severe nerve damage occurred, crusts usually formed in four to eight days. In nearly two thirds of the patients,

eruptions cleared in less than two weeks; in only 1 patient did the eruption take longer than three weeks to clear.

During treatment with ABOB 13 of 17 patients who initially had pain reported that it disappeared; in 6 it was gone within two to five days after the drug was started; in 7, within 7 to 11 days. In general, it seemed that the later treatment was begun after vesicles appeared, the longer the pain lasted.

Of the 4 patients with residual pain, all were 60 years of age or older—which might be expected since the incidence of postherpetic neuralgia increases with age. One patient had had residual pain for one year following a previous episode of herpes zoster, and continued to have it after taking ABOB for 10 days. In 2 others treatment was not started until relatively late (7-10 days after the eruption appeared), but in the third it was begun quite early (two days after the eruption appeared).

Summary

During a one-year period 19 patients with herpes zoster were treated with abitylguan-

ide (ABOB), a compound reported to exhibit activity against certain viruses. The drug was given in oral doses of 200 mg. three times a day for a period of 10-14 days usually. Over-all results suggest that if treatment were started early, two to three days after the appearance of vesicles and before severe nerve damage occurred, lesions generally involuted and pain ceased relatively soon. No side effects were noted. In no case was it necessary to reduce the dosage or discontinue the drug.

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AN IMPORTANT MESSAGE ON GERMAN DRUG—THALIDOMIDE

The Journal takes cognizance of press reports out of Washington alleging that a number of physicians in North Carolina had been allocated investigative quantities of the drug *thalidomide*, possibly two to three years ago. General information is that the distributor of the investigative quantities has consistently advised withdrawal and destruction of the drug since December of 1961. The Journal has no information regarding the alleged investigative program in North Carolina; however, the Journal is impelled to strongly advise any physician who may yet have thalidomide in possession or who may have allocated any quantity to patients, particularly patients in gestation, to be diligent in a current effort to secure and return any quantity of it remaining to the source from which it was received.

Hepatitis Following Administration of Ilosone

Case Report

WILLIAM ALLEN RILEY, M.D.

WINSTON-SALEM

Propionyl erythromycin ester lauryl sulfate (Ilosone^R) has for some years been used for the treatment of a wide range of common bacterial infections, especially in skin, soft-tissue, and respiratory infections. According to the literature of the manufacturer (Eli Lilly & Company), "No serious toxic reactions have ever been encountered; allergic reactions are infrequently seen and are seldom serious; gastrointestinal side effects may occur in a very small percentage of cases, but they are seldom sufficiently troublesome to necessitate withdrawal of the antibiotic."

The recommended dosage for adults is 250 mg. every six hours. This dosage may be doubled in severe or deep-seated infections.

Case Report

Hepatitis in a 23 year old male college student was presumably induced by the administration of Ilosone 250 mg. four times daily for five days. The patient remained clinically ill for 28 days after its onset.

A challenging dose of four capsules over a 24-hour period caused a 10-day relapse.

The patient had consulted his college physician because of a sore throat, and was given the Ilosone as described above. On the fifth day he returned, complaining of fatigue and generalized aching, although his throat symptoms had disappeared. He was given aspirin and put to bed, but the next day his eyes were yellow and urine was dark, and he was hospitalized. His liver was firm and tender, and palpable two finger-breadths below the right costal margin. Laboratory studies suggested early viral hepatitis.

Four days later he was transferred to his hometown hospital and to my care. On admission, he was deeply jaundiced, suffered intense itching, and had a heart rate of 52. He had, however, regained his appetite.

His total bilirubin was 9.59 with a direct of 6.47. Over a 24-hour period, bilirubin gradually and uninterruptedly descended to 2.35 total and 1.47 direct on the morning before the administration of the challenging doses of Ilosone. Four 250 mg. capsules were given that day. On the following morning the total bilirubin had jumped to 4.41 (direct 1.76), and then, over a ten day period, the total bilirubin went to the 2.3 level. The patient was dismissed from the hospital and warned not to take Ilosone. Liver function studies repeated a month later showed no abnormality.

Comment

Recently several cases¹, of hepatitis caused by sensitivity Ilosone to have been reported in which treatment was of short duration (five days), and in which the hepatitis continued to worsen after the medication had been stopped. The response to the challenging dose shows a remarkable hypersensitivity. Perhaps every recent case of hepatitis should be reviewed to determine whether it occurred immediately after administration of Ilosone.

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MORE MEDICAL GOODS AND SERVICES

People today are using medical goods and services more than they did in years past, partly because they have more education in health matters and partly because higher incomes have raised the standards of what good medical care should be.—*Changing Times*, June 1961.

Report from The Duke University Poison Control Center

JAY M. ARENA, M.D., *Director*

PHOSPHORUS

Phosphorus exists in two forms: (1) a red, granular, nonabsorbed form which is nontoxic, and (2) a yellow or white waxy solid which is highly poisonous and will burn on contact with water or even moist air leaving a garlic-like odor.

This chemical is used in insect and rodent poisons, fireworks, and fertilizer manufacture. Matches on the U. S. market now contain phosphorus trisulfide, which is very unreactive chemically, thus eliminating the danger of poisoning that formerly existed when yellow phosphorus was used in the heads of matches.

After ingestion phosphorus exerts a local toxic action in the digestive tract and is then absorbed with later injury to liver and muscle; the heart, kidneys, and nervous system are also damaged. Gastric symptoms may be immediate or delayed for some hours, but then abdominal pain, nausea, vomiting, and diarrhea ensue. The vomitus has an odor of garlic and is luminescent. A symptom-free period of one to three days may then follow, marked by minor complaints such as eructation, nausea and thirst, before intensified symptoms reappear as a result of widespread organic and systemic effects. Death may also occur within 12 hours from vascular collapse or from acute damage to the myocardium owing to a direct toxic action.

Nausea, protracted vomiting (with streaking of blood), bloody diarrhea, jaundice, pruritus, and abdominal tenderness in the region of an enlarged liver reflect hepatic degeneration. Delirium, convulsions, coma, and sudden collapse suggest acute yellow atrophy. Hepatic insufficiency is further evidenced by a decrease in blood sugar (failure of glycogenolysis), hypoprothrombinemia, and increased coagulation time. These abnormalities and direct damage to the walls of blood vessels are responsible for ecchymoses and petechiae of the

skin, mucous membranes, and viscera. The hepatic insult is reflected by a lessened urea content and the presence of amino acids in the urine, especially leucine and tyrosine. An early hyperglobulinemia, attributed to hepatic change and dehydration from continued vomiting or diarrhea, may persist even after efficient hydration.

The kidney is injured; the urine is scanty, phosphorescent and bloody, and contains droplets of free fat and albumin. Death may follow in one or two days with acute renal shut down and peripheral vascular collapse.

There are personal peculiarities in the toxic response. In a healthy adult, 50-65 mg. may produce decidedly dangerous or fatal symptoms. Yet recovery has been reported after doses up to 400 mg. High mortality is expected if the poison is in a liquid vehicle (especially alcohol).

The oral ingestion of phosphorus presents an emergency which demands early diagnosis and immediate treatment. A history of ingestion of a phosphorus-containing substance, the garlic odor in vomitus or feces, the recovery or demonstration of phosphorus in them, and the presence of the characteristic toxic symptoms serve as diagnostic criteria.

Gastric lavage should invariably be done if the patient is seen within the first five hours. If shock is imminent, gastric lavage may intensify circulatory failure—and should therefore be used with caution. Copper sulfate (0.25 to 0.3 Gm. in a glass of water) forms an insoluble coating of copper phosphide. Potassium permanganate (1:5000 solution) appears to be effective as an oxidizing agent and as an aid in mechanical removal. Four or more liters are recommended to remove the element thoroughly from the stomach. Mineral oil has been given by mouth (or stomach tube) as a solvent to prevent absorption of phosphorus and to hasten its elimination; an initial dose of 200 to 250 ml. is given, and then doses of 30 to 40 ml. every three hours for the first 48 hours. A cathartic of magnesium sulfate after gastric lavage helps to cleanse the bowel of phosphorus, but purgation, by its dehydrating and diarrheal effects, may place an extra load on the cir-

culatory system and should be avoided.

The supportive measures are directed at the prevention or treatment of acidosis, dehydration and shock, and relief of pain. Fluid and electrolytes are given to maintain balance. For protection of the liver, large quantities of glucose given by mouth (if possible) and vein are helpful. Vitamin K is indicated if the blood prothrombin level is low. Vitamin B complex, thiamine, and ascorbic acid are regarded as useful supplements. The indications for blood transfusion must be carefully evaluated, for the main defect is poor venous return.

Even with energetic treatment, the mortality is near 50 per cent.

REPORT ON ACTIONS OF THE
HOUSE OF DELEGATES
AMERICAN MEDICAL ASSOCIATION
One-Hundred and Eleventh
ANNUAL MEETING
JUNE 24-28, 1962
CHICAGO

Health care for the aged, medical discipline, composition of the AMA Board of Trustees, a study of the American Board of Abdominal Surgery, relations with the American College of Surgeons, and voluntary health insurance were among the major subjects acted upon by the House of Delegates at the American Medical Association's One-Hundred Eleventh Annual Meeting held June 24-28 in Chicago.

Dr. Edward R. Annis of Miami, Florida, chairman of the AMA National Speakers Bureau and well known spokesman in the campaign against the King-Anderson Bill, was chosen president-elect of the association. Dr. Annis will become president at the June, 1963, annual meeting in Atlantic City, succeeding Dr. George M. Fister of Ogden, Utah, who assumed office at the Tuesday night inaugural ceremony in Chicago.

The AMA 1962 Distinguished Service Award was voted to Dr. Russell L. Cecil, 81, of New York City, senior editor of the

This report is submitted by the North Carolina delegation of the AMA House of Delegates, Dr. Elias S. Faison, secretary.

Textbook of Medicine and one of the nation's leading researchers in the field of arthritis.

Final registration figures at the meeting reached a total of 42,643, including 14,092 physicians.

Health Care for the Aged

The House received 17 resolutions expressing full support of the Kerr-Mills program and firm opposition to the King-Anderson type of legislation. In reaffirming the position of active opposition to the King-Anderson bill, the House cited the following reasons:

- 1) the lack of need for such a plan.
- 2) that it would provide inadequate care for all aged rather than complete care for those who need help.
- 3) the fact that inherent in the use of the Social Security mechanism are governmental controls of medical practice which would increase with the expansion of the program.
- 4) deterioration of the quality of medical care not only for the aged but for the population as a whole.

In reaffirming strong support for the Kerr-Mills Act, the House declared that "the Kerr-Mills method should be given a fair and reasonable chance to meet the need and thus remove the demand for further Federal legislation."

It urged that in states where existing programs indicate a need for a Kerr-Mills implementing law, each state association should actively sponsor and promote with other responsible citizens the enactment of such a law. It also urged the state associations to "work actively with other responsible citizens in reviewing the functions of the law, evaluating its effectiveness, and aggressively supporting improvements in programs to aid those aged who need help so as to achieve the provision of quality medical care and service."

The House took no action on one resolution which called for non-participation in the implementation of the King-Anderson bill, but it urged individual physicians to give particular consideration to the following sections of the Principles of Medical Ethics:

Section 1.—The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

Section 5.—A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients.

Section 6.—A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care.

Commenting on the Association's fight against the King-Anderson Bill, Dr. Leonard W. Larson, retiring president, told the opening session of the House that "this great struggle has been testing again whether the science and art of medicine will be permitted to grow and flourish in freedom, or whether progress in medicine will be stunted and shriveled by the excesses of government control."

He declared that the steadfast refusal of the AMA to compromise on basic principles "has been a source of strength for us and our friends." Dr. Larson expressed confidence in ultimate victory, but he added that victory will impose a solemn obligation of responsible leadership for all physicians.

Also commenting on the question of compromise, Dr. Fister in his inaugural address said, "we will not compromise with those who regard medical care problems as simply playthings in the game of politics—gimmicks to attract the votes of the gullible."

Medical Discipline

To implement one of the major recommendations made by the Medical Disciplinary Committee at the June, 1961, meeting in New York, the House approved a change in the Bylaws under which a proposed Section 1 (B) of Chapter IV will now read:

In addition to such disciplinary action as may be taken under the constitution and

bylaws of the component society and constituent association to which the Member belongs, or when a state medical association to which a Member belongs requests the AMA to take disciplinary action, or when at the request of the American Medical Association the state association to which the member belongs consents to disciplinary proceedings by AMA, the Judicial Council, after due notice and hearing, may censure him, or may suspend or expel any member of the American Medical Association from AMA membership only for an infraction of the Constitution or these Bylaws or for a violation of the Principles of Medical Ethics.

AMA Board of Trustees

The House approved a report of the *Ad Hoc* Committee on the Board of Trustees which recommended that the size of the Board be increased from 11 members to 15 members. This will be accomplished by adding three elected members and by including the immediate past president of the Association for a one-year term. The House also accepted a committee recommendation that set the term of office for elected Board members at three years and limited the number of terms to three, for a maximum total of nine years service. To implement the House action, the Council on Constitution and Bylaws submitted changes in the Constitution and Bylaws for consideration at the 1962 Clinical Meeting.

American Board of Abdominal Surgery

A study report from the Council on Medical Education and Hospitals, recommending that recognition should not be granted to the American Board of Abdominal Surgery as a specialty board, was approved by the House. In accepting the Council report, the House also declared its disapproval in principle of establishing specialties which are based largely or wholly on an arbitrarily defined anatomical region of the body.

The study, which was carried out under instructions from the House of Delegates at the 1961 Clinical Meeting, concluded that the present contribution of the American Board of Abdominal Surgery to the advancement of surgery and the betterment of public health is inadequate in many important

respects. It also concluded that the American Board of Abdominal Surgery does not offer significant potential for the advancement of surgery and the betterment of public health.

American College of Surgeons

In considering a Board report and four resolutions involving surgical assistants and relations between the AMA and the American College of Surgeons, the House declared that the adoption and interpretation of the Principles of Medical Ethics is the prerogative and duty of the American Medical Association. It also restated the Association's June, 1961, policy statement in the following manner:

(1) Each member of the AMA is expected to observe the Principles of Medical Ethics in every aspect of his professional practice.

(2) Each doctor engaged in the care of the patient is entitled to compensation commensurate with the value of the services he has personally rendered.

(3) No doctor should bill or be paid for a service which he does not perform; mere referral does not constitute a professional service for which a professional charge should be made or for which a fee may be ethically paid or received.

(4) When services are rendered by more than one physician, each physician should submit his own bill to the patient and be compensated separately whether possible.

(5) It is ethically permissible in certain circumstances, however, for a surgeon to engage other physicians to assist him in the performance of a surgical procedure and to pay a reasonable amount for such assistance. This principle applies whether or not an assisting physician is the referring doctor.

Voluntary Health Insurance

In accepting a Council on Medical Service report on the utilization of state and federal tax funds to provide voluntary prepayment health insurance protection to assist the aged in meeting the costs of health care services, the House approved the following policy statement:

1. The need for application of the prepayment or insurance principle to protect our people against the costs of medical care is

fully recognized and applies to all ages rather than to the aged alone.

2. Persons financially able to prepay their own expenses are expected to do so and must be encouraged rather than compelled to do so.

3. Persons financially unable to prepay adequately their expenses may properly be assisted to the degree necessary by their families, their communities, their states, and if these fail, by the Federal Government—but only in conjunction with other levels of government.

4. The prepayment system should be devoid of governmental controls.

5. Dignity and self-sufficiency for the individual should be upheld.

6. The protection offered must be reasonably comprehensive rather than token in character.

The House recommended that the Board of Trustees and the Council on Medical Service explore all possibilities, using these principles as a basis.

Miscellaneous Actions

In considering reports and resolutions on a wide variety of subjects, the House also:

Learned that the Board of Trustees has instructed the Council on Drugs to conduct a study on the relationship between *tobacco and disease*.

Disapproved a suggestion that the Council on Medical Education and Hospitals be replaced by *two separate councils* on undergraduate and graduate medical education.

Referred to the Board of Trustees a proposal that at least six members of the *Council on Medical Education and Hospitals* shall be engaged primarily in the private practice of medicine in hospitals without a medical school affiliation and that no more than four members may be salaried personnel of a medical school or university.

Approved a resolution that *honorariums* be provided for the Association's elected officers in amounts to be determined by the Board of Trustees.

Adopted an AMA Statement of Principles on *Mental Health* and urged all constituent associations to lend active support to the

First National Congress for Mental Illness and Health, to be held in Chicago in October.

Endorsed a resolution on *employment of the handicapped*, stating that each individual candidate for employment should be evaluated in light of his ability to perform useful work.

Approved a Guide to the Organization and Operation of *Airport Medical Services* submitted by the Council on Occupational Health.

Endorsed the joint statement on *narcotic addiction* by the AMA and the National Research Council of the National Academy of Sciences.

Urged automobile manufacturers to make *seat belts*, approved by the Society of Automotive Engineers, standard equipment on all automobiles.

Approved a recommendation that *AMA meetings* be scheduled as follows: Annual Meetings—1966, Chicago; 1967, Atlantic City, and 1968, San Francisco; and Clinical Meetings—1965, Philadelphia, and 1966, Las Vegas.

Recommended that the Council on Medical Education and Hospitals conduct a study of *specialty residencies*.

Reaffirmed its opposition to *compulsory coverage of physicians* under the Social Security Act, after receiving 11 resolutions opposing coverage and only two favoring the inclusion of physicians.

Accepted the report of the *Committee on Communications* as information, and, in considering the committee recommendations, suggested that the Executive Vice President present a report of Association activities to the House at each meeting.

Opening Session

At the Monday morning session, the AMA presented a special citation to Jackie Cooper, star of television, stage and movies, for his portrayal of a Navy doctor in the "Hennessey" television program. The 1962 Joseph Goldberger Award in clinical nutrition was presented to Dr. Edwards Albert Park of Baltimore for his investigations of rickets and scurvy in children. Dr. Larson received

a plaque for his work on the medical advisory board of the Sears-Roebuck Foundation. The American Medical Association was given awards of appreciation from the Cuban Medical Association in Exile and the Girl Scouts of America.

Inaugural Ceremony

Dr. Fister, in his inaugural address, declared that "we will cooperate, to our very utmost, with government officials, legislators and all Americans who are sincerely interested in finding sound, practical solutions to medical care problems—solutions which include both a respect for medical standards and a respect for the taxpayers." The Distinguished Service Award was presented to Dr. Cecil, and Donald D. Van Slyke, Ph.D., research chemist at the Brookhaven National Laboratories, received the first AMA Scientific Achievement Award honoring outstanding contributions to medicine by non-physician scientists. Mrs. George Papanicolaou was given a special award honoring her late husband's service to mankind.

Wednesday Session

Dr. Fister, in his Wednesday address, assured the House of Delegates, all AMA members and the citizens of this country that "during the next year there will be no letup in our campaign to preserve the high standards of our voluntary, free choice, medical care system." He said that no organization, especially one which thrives on challenge and opportunity to serve the public, can be static.

Election of Officers

In addition to Dr. Annis, the new president-elect, the following officers were named at the closing session on Thursday:

Dr. J. P. Culpepper, Jr., Hattiesburg, Mississippi, vice president; Dr. Norman A. Welch, Boston, re-elected speaker of the House, and Dr. Milford O. Rouse, Dallas, Texas, re-elected vice speaker.

Dr. Charles L. Hudson, Cleveland, Ohio, and Dr. Wesley W. Hall, Reno, Nevada, were re-elected to five-year terms on the Board

of Trustees. Dr. Elmer G. Shelley, North East, Pennsylvania, was renamed to the Judicial Council.

Re-elected to the Council on Medical Education and Hospitals were Dr. Warde B. Allan, Baltimore, and Dr. W. Clarke Wescoe, Lawrence, Kansas.

Dr. George W. Slagle, Battle Creek, Michigan, was elected to the Council on Medical Service, succeeding Dr. Robert L. Novy, Detroit, who was ineligible for re-election.

For the Council on Constitution and By-laws, Dr. Walter E. Bornemeier, Chicago, was re-elected, and Dr. James Monroe Kolb, Sr., Clarksville, Arkansas, was named to fill the unexpired term of the late Dr. Walter E. Vest, Huntington, West Virginia.

At the annual meeting of the North Carolina Medical Society held in Raleigh in May, our House of Delegates discussed the Missouri Resolution, which was designated Resolution No. 6 and was referred to the Reference Committee on Medical Education and Hospitals. Dr. Amos N. Johnson was a member of this Committee. Your delegates to the A.M.A. were instructed to vote in favor of this Resolution. The recommendations of this Resolution are quoted:

Resolved, that future elections to membership on the AMA Council on Medical Education and Hospitals be so regulated that a ratio of six (6) private practitioner members to four (4) full-time university or faculty connected members will be established and maintained on the Council; and be it further

Resolved, that the House of Delegates of the American Medical Association hereby instructs

the Council on Medical Education and Hospitals that it is the desire of the House to perpetuate postgraduates programs of medical education in institutions which are not necessarily affiliated with medical schools, in order that a high degree of diversification may be maintained in the field of postgraduate medical education.

After a great deal of discussion the AMA Committee presented a substitute resolution which read as follows:

Resolved:

- 1) That at least six members of the Council shall be engaged primarily in the private practice of medicine in hospitals.
- 2) That no more than four members may be salaried personnel of a medical school or university.
- 3) That in the selection of all individuals as nominees for election to Council membership, deliberate care shall be exercised to assure that those selected understand and are sympathetic to the medical needs of the public.

After further discussion on the floor of the House of Delegates, the original Resolution and the substitute Resolution were referred back to the Board of Trustees for further consideration. We will hear more about it in Los Angeles in November.

The Hospitality Room, which was sponsored by Alabama, Georgia, North Carolina, South Carolina, Tennessee, and Virginia, was a great success. It was well attended and many compliments were received.

Respectfully submitted,

MILLARD D. HILL, M.D.

AMOS N. JOHNSON, M.D.

CHARLES F. STROSNIDER, M.D.

ELIAS S. FAISON, M.D., Secretary

PRICES AND POLITICAL PROMISES

For the first time, medical care and drugs have become recognized items of cost that the public is not used to—and they don't like it. It makes little difference that the cost is still cheap and within the means of most people. They still don't like it, especially when some of our politicians tell them that the costs are too high—and through legislation "I can get it for you for free or for practically nothing."—Theodore G. Klumpp, M.D., President, Winthrop Laboratories, in *New York Medicine*, August 20, 1961.

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AUGUST, 1962

A.M.A.'S ONE HUNDRED ELEVENTH ANNUAL MEETING

The report of our delegates to the One Hundred Eleventh Annual Meeting will be found in this issue. Incidentally, a picture in the *Medical Tribune* for July 9 shows that the North Carolinians were well up front, though unfortunately Drs. Millard Hill and Charles Strosnider were not within range of the camera.

The report is quite comprehensive, but it is pertinent to add a few comments.

Dr. Russell L. Cecil was selected by the House of Delegates for the Distinguished Service Award, but our own Dr. W. C. Davison was one of three nominees for this distinction. And a Duke student, Angus McBryde, Jr., deserved the hearty applause given him as one of two representatives of the Student American Medical Association who addressed the House of Delegates.

Dr. Edward Annis of Miami, Florida, was

given a large majority in the voting for President-Elect. He was the first man so honored within the past 40 years who had not previously served in the House of Delegates, on the Board of Trustees, on a council or committee, or on one of a number of such A.M.A. groups. His selection was in recognition of the valuable service he has rendered as chairman of the A.M.A.'s National Speakers Bureau.

An innovation in the inauguration ceremony this year was the presence on the platform of the society presidents of the 52 states, the District of Columbia, and Puerto Rico. Dr. John Kernodle looked as distinguished as any of them.

Both Dr. Larson's farewell address and Dr. Fister's inaugural address were excellent. Dr. Larson has made an excellent record as President the past year. With Dr. Fister as President and Dr. Annis as President-Elect, the A.M.A. may confidently expect to go forward.

* * *

GOVERNMENT MEDICINE IN JAPAN

Except for the Washington News, the NORTH CAROLINA MEDICAL JOURNAL rarely quotes from the *Journal of the American Medical Association*, because virtually all our readers subscribe to it. A letter in the issue for June 16 from Drs. Eliot Corday and Simon Dack of Los Angeles, however, gives such an appalling picture of medical practice in Japan under government control that it is pertinent to refer to it at this time, for the benefit of those who either fear or favor increased interference by our federal government in medical practice.

Drs. Corday and Dack say that they learned to appreciate American medicine and the A.M.A. in a Tokyo restaurant during a luncheon with five Japanese medical professors following a lecture they had given. After a delicious luncheon the Americans asked the Japanese professors how their medical insurance scheme was working. Then came the revelation that made organized American medicine so attractive. Their host explained that

"under the national insurance program the average income of a practitioner is the equivalent of \$35 a month, while a professor earns

around \$50. To earn this amount, a physician must see about 100 patients a day. When you crowd that many patients into a day, he went on, you cannot spend too much time with each one—or with his problem—to make an adequate diagnosis.

We asked him how much earning power \$50 a month represented in Japan. For instance, how did it compare with the wages of factory workers? It was less, he said; the factory worker earns more. "My own wife," he said, "has to work in a transistor factory to supplement my income. My practice alone cannot provide us with a decent livelihood."

He said he could not afford a car. Like most other Tokyo practitioners, he makes his house calls on foot or by street car. Neither can he afford a technician, a secretary, or a nurse. He handles everything himself, including the overwhelming paper work required by the insurance program. . .

Most physicians, he added, strongly advised their sons against pursuing a career in medicine. They directed them instead into law, business, or banking—all economically more satisfying. . .

And there the discussion ended. We looked around the beautiful and obviously expensive, restaurant. The bill for our luncheon, even when divided among the 5 professors, would probably cost them each a week's earnings. It was a disturbing thought. What we had eaten was certainly a delicacy; but, as one of our wives remarked later, with the depressing thought of having taken their living away from them, "it lay like lead."

A section of the U. S. lay press and a number of our political leaders are in full cry against the American Medical Association for battling social medical schemes. How many of our doctors have been brainwashed by this campaign? How many of them have stopped to think, as we were forced to in Tokyo, why American medicine is now the foremost in the world? We're sure the American press does not realize this fact.

A few medical veterans may recall that during the first term of President Roosevelt the Federal Emergency Relief Administration (FERA) was organized to furnish employment to many. The state administrator of FERA had been authorized to have all employables examined. For this purpose an elaborate blank had been prepared, which included a urinalysis and a Wassermann test. For making this examination—which all who saw it agreed was equivalent to a regular five-dollar insurance examination—the doctor was to be paid the munificent sum of fifty cents.

It is true that money was then scarcer than it is now; but it is evident that the average politician, in our country as well as in Japan, places a very low value on physician services.

* * *

THE DOCTOR'S IMAGE

Dr. Samuel Adelson's presidential address, published in the *Rhode Island Medical Journal* for June, entitled "The Doctor's Image—Past, President, and Future," is so timely and so pertinent that part of it is reported below, with a hearty Amen!

"The doctors' image now is apparently seen through a mirror which causes a very ugly distortion. The fact is that almost every individual believes in his own doctor. He considers his doctor able, competent, honest, sympathetic. He entrusts his health and life and that of his family to the hands of his doctor and feels a sense of security. He has chosen his doctor of his own free will and discusses his medical problems with him easily and without restraint. There is a complete understanding which is mutually satisfactory and beneficial . . . Yes, the patient likes his doctor, trusts and believe him. But the same patient is made to believe that a majority of the doctors are not like that. He is made to believe, by the exaggerated newspaper stories and by irresponsible statements from people who represent selfish interests or who have political ambitions, that doctors are making too much money. That they do not deserve the fees they ask. That they abuse Physicians Service plans and other insurance companies. Unfortunately, people who make such statements are not required to substantiate their accusations by proof, and the accused is not given the opportunity to disprove these wild accusations. The newspapers are immune as long as they omit names and only print what is told to them, giving their source of misinformation. This sells newspapers and makes money. They are on firm ground legally. But, from the moral aspect, are they serving the public interest by being accessory to the act of blackening the reputation of the members of a noble profession without proof of wrong-doing? Are

they carrying out the proper functions of the fourth estate? . . . A thousand doctors should not be subjected to abuse and suspicion for the faults or a very few.

. . . The campaign to lower the prestige of the individual physician and to defame the American Medical Association and state and local medical societies has sunk to new lows of gutter sniping. All faults or imaginary faults of the profession were grossly exaggerated and all great achievements were minimized or ignored. This was part of an organized plan by those who desire a total welfare state and look to the eventual socialization of medicine as well as other services. Public funds are used to further this campaign. The over-65-years-of-age men and women are transported to meeting places and told when to applaud. They are promised pie in the sky: total paternalistic care of all their needs at no cost to them. Who will pay the bill? I believe that it is immoral, improper and illegal to use public funds to further this political movement."

* * *

TED WIPRUD RETIRES

After serving since 1938 as the executive secretary of the Medical Society of the District of Columbia and managing editor of its *Medical Annals*, Mr. Theodore Wiprud retired on July 1. An editorial in the May *Annals* paid tribute to him as executive director, as managing editor, as friend of the doctor, and as friend of the people. The editorial writer describes him as "the dean of America's Medical Society Executive Secretaries." As managing editor "he has worked in complete harmony with the Editor." This is a tribute to Editor Wallace Yater as well as to Ted—for each of these men has the courage of his convictions and neither is a yes man.

And Ted has been indeed a real friend of the doctor and of the public.

North Carolina should have a strong appeal to Ted—for his daughter is the wife of Dr. Isaac H. Manning of Durham. It is to be hoped that Ted will spend much of the leisure time now at his disposal in our state. He may be sure of a warm welcome.

GEORGE W. COOLEY SUCCEEDS TED WIPRUD

While Ted Wiprud's retirement left a very large pair of figurative shoes to fill, it is hard to think of a more fortunate choice of a successor than Mr. George Cooley. George has been secretary of the A.M.A.'s Council on Medical Service. Before coming to the Council in 1945, he was executive secretary of the Toledo Academy of Medicine. Ted Wiprud began his final "In & Out of Focus" column by introducing George to the Medical Society of the District of Columbia. This JOURNAL adds a hearty "amen" to Ted's concluding sentence: "Best wishes, George, for a long and happy relationship with the Medical Society of the District of Columbia."

* * *

THE SUCCESS STORY OF BLUE SHIELD

Nearly 50 million of our fellow citizens last year prepaid more than three fourths of a billion dollars of their physicians' services through America's 70 Blue Shield Plans. And this vast volume of service was rendered at a cost of less than 10 cents on the dollar. Indeed, with only one exception, the operating expense ratio of U. S. Blue Shield Plans has been reduced every year since 1946.

To some people, "nonprofit" operation implies inefficiency, high costs. Not so with Blue Shield, whose operating costs are the lowest in the business. Nonprofit in Blue Shield means that every salvagable cent of the subscriber's dollar is utilized to provide the broadest possible scope of medical benefits. In a word, the "profits" of Blue Shield go to provide benefits to the Blue Shield subscribers, for whose benefit Blue Shield was created.

Every American physician should take pride in the success story of Blue Shield. It offers us, our fellow citizens—and our government—a striking demonstration that American physicians, employers, workers, farmers, and all the rest of us, working together in a free society, can solve vast social problems by voluntary cooperation, without recourse to governmental assistance or domination.

President's Message

THE ORGANIZATION OF THE MEDICAL SOCIETY OF THE STATE OF N. C. AND YOUR RESPONSIBILITY

The Society is the official organization representing the physicians in North Carolina. There is a central office in Raleigh with an experienced administrative staff of four executives and a production staff of six qualified secretaries. These people are actually functioning 365 days a year to keep all the records in order and to continually bring to the members information on all matters pertaining to health care of the citizens of North Carolina. The officers of the Society, along with Councilors, one from each of 10 medical districts, make up the Executive Council. This body acts officially in all matters during the interim between the annual meeting of the House of Delegates. Membership of delegates is based on population of county medical societies—one delegate for each 25 members.

In 1956 the Review Committee recommended a decrease in the number of committees from approximately eighty to a more active group of forty-two. Since this time, committees have been redevise to form a greater number but also, several new ones have been added bringing the total to 52. The committees are divided into six groups with a commissioner in charge of each group. The commissioner is obligated to serve as liaison and to stimulate action on the part of all committees assigned to him and report by letter to the president of the Society the problems, projects, and progress of each committee during the year. The commissioner also relates the actions of the committees to the Executive Council for consideration and approval.

There are many facets to the operation of the Society, and the results of any administration depends solely on the plans, actions, and recommended policy of the committees. Many of them are completely autonomous in their work, but most of them are overlapping in related interest with other committees, thus requiring a very close liaison between the chairmen of committees.

Why should your president relate the

simple facts of organization to you? Well, it's a very complex, multiple action program of the Society that needs much coordinated action. Every committee member is an important cog in the overall results. Some of you have been appointed to serve on the Society's committees, and I hope you chose to do so with determination. If others have special desires to function as committee members, please let me know, and I will be most happy to see that you are appointed to the area of activity of your choice.

Many committees have already met, organized and set out on projects for the year. During the days of September 13-16 at the Jack Tar Hotel in Durham, the annual conclave of committees will take place. Please arrange to be present and participate in your committee actions. There are many problems ahead for 1963. Use your judgment, ability and knowledge to make this the best year ever in the history of the Society.

While developing comments for this Presidential Message to the members of the Society, the Congress has acted on proposals of long standing to implement a Federal tax program designed to establish a political system of medical care of the aged. The result was the defeat of the Anderson-Javits amendment to the King-Anderson Bill. Our contentions had been that this legislation was unnecessary and that the medical care of the aged in North Carolina was the obligation to continue to serve the needs for medical care of the aged through the private practice of medicine aided by a fuller implementation of the Kerr-Mills law for the needy aged in North Carolina. Therefore, I call the attention of the profession to the resolution adopted by the House of Delegates on May 8, 1962 which sets to rest any doubt of the obligation of the Medical Society and the profession which it represents as to this serious problem. The Resolution is as follows:

1. The members of the Medical Society of the State of North Carolina pledge to pro-

vide medical care to the full extent of their ability to all their patients and to the citizens of North Carolina in full keeping with their responsibilities as physicians.

2. We declare our resolve to resist vigorously House Bill 4222 known as the King-Anderson Bill, and other types of compulsory legislative proposals to increase taxation to support the social security mechanism to provide health care for the aged. We oppose any socialistic system which denies the patient the right of freedom of choice.

3. We dedicate ourselves to the improvement of the quality of medical care now available to the American people and urge the use of funds already available under existing legislation and the use of voluntary systems of health insurance to provide medical care for all the people.

4. We confidently call upon our representatives in the Congress of the United States to be guided in their judgement on these important issues by their knowledge of the present excellence of American medical care practiced in an atmosphere of freedom.

This expression of determination by the doctors of North Carolina should become a guidepost citing the obligations of the profession and serve as public notice that the medical care needs of the aged in North Carolina will be met through private enterprise, medical action and cooperation.

Looking forward to seeing you in September.

JOHN R. KERNODLE, M.D., President

"TV and radio are gaining recognition as methods of communication in the medical field," according to **Patterns of Disease**, a monthly Parke, Davis & Company publication for physicians. The Albany Medical College's 2-way radio conferences, for example, which have grown steadily since the programs began 6 years ago, have been attended by more than 33,000 physicians. Had they gone to Albany to attend, these physicians would have traveled more than 1,500,000 miles. Similar conferences have been started in Pennsylvania and in North Carolina, **Patterns** reports.

Committees & Organizations

POLIOMYELITIS VACCINE COMMITTEE

RECOMMENDED USE OF POLIOMYELITIS VACCINE IN 1962

Oral Vaccine (Sabin)

Summer 1962:

- (1) **Epidemic Use Only:** Immediate, mass, all-age immunization with type specific vaccine.

The extent of the area to be protected should be carefully delineated by Public Health Survey.

An epidemic consists of at least three cases in the same area in one month (U. S. Public Health Service). These cases must be documented by careful epidemiologic studies and at least two proved to be caused by the same virus type. The Division of Epidemiology of the State Health Department stands to do rapid identification of virus type, make immediate epidemiologic surveys, etc. upon request.

The oral vaccine (Sabin) for such epidemic use may **possibly** be obtained from the limited epidemic supply of the U. S. Public Health Service on application by the State Health Officer. Otherwise, unless HR 10541 (the pre-school immunization bill) is passed by the Congress, no federal or state funds will be available for such use. Local communities will have to furnish their own vaccine.

- (2) Other use is not recommended this summer; that is, we discourage its use by private physicians in their individual practices because
 - (a) of the possibility of interference by other intestinal viruses in hot weather, with failure to achieve adequate immunity from Sabin virus. This situation does not arise during the cold months.
 - (b) Sporadic use this summer by some physicians, with most of us sticking to the Salk vaccine, is calculated to produce confusion and apprehension in the people, and is considered **not** to be in the public interest.

Late Fall and Winter 1962:

- (1) Organized, community mass use all over North Carolina:

The type of program in each locality should be decided by local physicians and health officials with advice from the State Health Department and the State Medical Society. It must be remembered that 80% of young adults and 65% of pre-school children are not now **adequately** immunized. If an all-age mass program (**the** preferred method according to all authorities) is not possible, a com-

munity should substitute a program directed toward the top priority groups as recommended by the U. S. Public Health Service; namely, pre-school children, young adults, parents of young children. In order to **eradicate** poliomyelitis a minimum of 80% of all pre-school children must be protected.

Detailed plans for such programs are obtainable from the State Health Department, the U. S. Public Health Service and the American Academy of Pediatrics.

- (2) A simultaneous (late fall and winter) and constantly continuing program of immunization of all infants born in this State, beginning at six weeks of age.

No federal or state funds are currently available for such programs.

*Recommended use of Salk Vaccine in
North Carolina in 1962*

Summer 1962:

- (1) Continuing immunization with Salk vaccine of the entire non-immune population by private physicians and health department all over the State.
- (2) A booster Salk for every previously immunized person who did not receive one in 1961.

Morbidity statistics reveal the effectiveness of the Salk vaccine in reducing paralytic poliomyelitis. The yearly average of new cases of paralytic poliomyelitis in the United States 1949-54 (before Salk) was 164 per million people. In 1961 the number was 5 per million. This result is attributed "in large part to seven years of extensive use of Salk vaccine" (Committee on Infectious Diseases of the American Academy of Pediatrics and the U. S. Public Health Service.)

No figures on new cases of paralytic poliomyelitis in North Carolina prior to 1955 are available. New cases in 1955 numbered **179**; in 1961, **9**.

At present, Summer 1962, there is no need to abandon the use of the Salk vaccine, whose effectiveness has been proved. Its future role will be determined somewhat by extensive trials with oral vaccine now under way in this country.

Hoped-for advantages of the Sabin vaccine are:

- (1) "no needle"
- (2) more permanent immunity
- (3) a greater degree of "herd" immunity by spread of the live virus from vaccinated to unvaccinated.

As additional information becomes available from authoritative sources (Committee on Infectious Diseases of the American Academy of Pediatrics, U. S. Public Health Service, The State Health Department) it will be forwarded to you by this Committee with appropriate recommendations.

Respectfully,
S. F. RAVENEL, M.D., Chairman,
Poliomyelitis Vaccine Committee

Bulletin Board

ANNOUNCEMENT

Attention is called to the important announcement regarding thalidomide at the bottom of page 360.

COMING MEETINGS

State

Cape Fear Valley Hospital Symposium—Cape Fear Valley Hospital, Fayetteville September 19.

American College of Obstetricians and Gynecologists, District IV—Barringer Hotel, Charlotte, October 4-6.

Mecklenburg Academy of General Practice Symposium—Charlotte, October 10-11.

Forsyth County Heart Association Annual Symposium—Hotel Robert E. Lee, Winston-Salem, October 12.

U.N.C. Postgraduate Medical Programs—Asheville, every Tuesday for six weeks; Morganton, every Wednesday for six weeks, Oct. 2-Nov. 13.

Raleigh Academy of Medicine Symposium on Collagen Diseases and Their Variants—Raleigh, October 19.

North Carolina Academy of General Practice Meeting—Jack Tar Hotel, Durham, October 31-November 2.

North Carolina Pediatrics Society Annual Meeting—Sedgefield Inn, Greensboro, November 9-10.

National

American Association of Obstetricians and Gynecologists—The Homestead, Hot Springs, Virginia, September 6-8.

American Medical Association First National Congress on Mental Illness and Health—Chicago, October 4-6.

International College of Surgeons Thirteenth Biennial Congress—Waldorf-Astoria Hotel, New York, September 9-13.

American Medical Writers' Association 1962 Convention—Sheraton-Park Hotel, Washington, D. C., October 12, 13.

Southern Medical Association Meeting—Hotel Fontainebleau, Miami Beach, Florida, November 12-15.

Postgraduate Medical Program on Marriage Counseling in Medical Practice—Clinic Auditorium, U.N.C. School of Medicine, Chapel Hill.

NEW MEMBERS OF THE STATE SOCIETY

The following physicians joined the Medical Society of the State of North Carolina, during the month of June, 1962: Dr. Cecil Howell Neville, Jr. c/o Dr. Cecil Howell Neville, Sr., Scotland Neck; and Dr. Delford LeFew Stickel, Box 3052, Duke Hospital, Durham.

NEWS NOTES FROM THE BOWMAN GRAY
SCHOOL OF MEDICINE OF
WAKE FOREST COLLEGE

Six instructors have been added to the full-time faculty of the Bowman Gray School of Medicine.

Receiving appointments, effective July 1, were Dr. Robert S. Pool, instructor in pathology; Dr. Modesto Scharyj, instructor in pathology; Dr. James W. Eubanks, instructor in experimental medicine; Dr. Eugene B. Linton, instructor in obstetrics and gynecology; Dr. Clyde O'Roark II, instructor in obstetrics and gynecology; and Dr. Arthur Wainer, instructor in biochemistry.

In other appointments, Dr. Clay Hughes Napare joined the part-time faculty as assistant in clinical medicine; Alfred Leonard Rhyne became assistant in biostatistics; and Dr. Zelma Kalnins, instructor in pathology, became assistant professor of clinical exfoliative cytology.

Dr. Pool, 32, and Dr. Scharyj, 42, completed residencies in pathology June 30 at North Carolina Baptist Hospital.

A native of Smithfield, Dr. Pool is a graduate of Wake Forest College. He received the M.D. degree from the Bowman Gray School of Medicine in 1955 and served an internship at the Massachusetts Memorial Hospital in Boston.

Dr. Scharyj, a native of Kokoschynze, Alizien, was graduated by the University of Cracow, Poland, and received the M.D. degree from the University of Vienna. He has held hospital appointments at the Institute of Pathology, Graz, Austria; University of Sorbonne, Paris; Barquisimeto, Venezuela; and the SS. Mary and Elizabeth Hospital, Louisville, Kentucky.

Dr. Eubanks, 29, has served as a postdoctoral fellow in the cardiovascular graduate training program of the Bowman Gray School of Medicine for the past year. A native of Buffalo, South Carolina, he attended Clemson College and is a 1961 graduate of the University of Georgia School of Veterinary Medicine.

Dr. Linton, 38, has been associated with the Acuff Clinic Association, Knoxville, Tennessee, since 1959. A 1947 graduate of Davidson College, he received the M. D. degree from the Medical College of Virginia in 1951. He served his internship at the James Walker Memorial Hospital in Wilmington and his residency at North Carolina Baptist Hospital.

Dr. O'Roark, 31, comes to the medical school from Ohio State University where he has served as instructor in obstetrics and gynecology for the past year. A native of Portsmouth, Ohio, he is a 1953 graduate of Denison University. He received the M. D. degree from Ohio State University and

arlidin
increases
blood flow
to the brain
in the
"senility syndrome"
associated
with
cerebrovascular
insufficiency



served an internship at Cincinnati General Hospital. He completed his residency at Ohio State University.

Dr. Wainer, 24, of Cincinnati, Ohio, has been an instructor in biochemistry at the University of Florida School of Medicine for the past year. A 1957 graduate of the University of Miami, he received the Ph.D. degree from the University of Florida in 1961.

* * *

The National Institutes of Health have awarded a \$32,000 research grant to Dr. Leonard A. Graham, instructor in pharmacology, to support a three-year project involving the separation and characterization of erythropoietin. Dr. Graham's primary goal is to find a means of stabilizing erythropoietin. He also will investigate where the hormone is produced and how it performs its functions in regulating the production of red blood cells.

* * *

Dr. William H. Boyce, professor of urology, and Dr. J. Stanton King Jr., research assistant professor of biochemistry, attended the Symposium International de la Lithiase Calcique in Paris, France, where they presented a joint paper on "Immunological Studies on Renal Calculi and Urinary Macromolecules."

* * *

Dr. Isadore Meschan, professor of radiology,

and Dr. James L. Quinn, III, resident in radiology, participated in the annual meeting of the Society of Nuclear Medicine held in Dallas, Texas, recently.

* * *

Dr. Norman M. Sulkin, professor of anatomy, presented a paper on "Insoluble Organic Compounds on Unknown Structure Observed in Aging. The conference was held in Tilton, New Hampshire.

* * *

Fourteen members of the faculty and house staff, representing seven departments of the Bowman Gray School of Medicine, presented papers at the tenth annual meeting of the Neurosurgical Travel Club. The meeting at the medical school was attended by 16 neurosurgeons from all sections of the United States and Canada. Dr. Eben Alexander Jr., professor of neurosurgery, served as host for the meeting.

* * *

Dr. C. Glenn Sawyer, associate professor of medicine, served as a member of the faculty for a special postgraduate course in cardiology at Emory University.

* * *

Dr. Eben Alexander Jr., professor of neurosurgery, has been elected secretary of the Harvey Cushing Society for a three-year period.

Inadequate cerebral blood flow—often due to cerebral arteriosclerosis—may result in the "senility syndrome" with its pattern of mental confusion, memory lapses, depression, fatigue, apathy and behavior problems.¹⁻³

43% increase in cerebral blood flow with Arlidin⁴

In patients with cerebrovascular insufficiency, Eisenberg⁴ measured a 43 percent increase in blood flow in the brain following administration of Arlidin orally for more than two weeks beginning with a dosage of 12 mg. t.i.d. and increasing to 18 mg. t.i.d. There was a decrease in cerebral vascular resistance in most instances.

Winsor and associates³ found Arlidin "of particular value clinically in relieving some of the symptoms of cerebral vascular insufficiency (vertigo, light-headedness, mental confusion, diplopia)."

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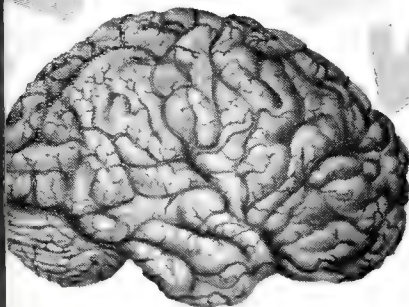
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references: 1. Madow, L.: Penn. M. J. 62:861, June 1959. 2. Stieglitz, E. J.: Geriatric Medicine, ed. 2, Philadelphia, Saunders, 1949 p 274. 3. Winsor, T., et al.: Amer. J. Med. Sciences 239:594, May 1960. 4. Eisenberg, S.: ibid, July 1960.

NOTE—before prescribing ARLIDIN the physician should be thoroughly familiar with general directions for its use, indications, dosage, possible side effects and contraindications, etc. Write for complete detailed literature.

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Dr. H. Francis Forsyth, associate professor of orthopedic surgery, has been elected to membership in the American Orthopaedic Association, which is composed of approximately 200 orthopaedic surgeons.

NEWS NOTES FROM THE DUKE UNIVERSITY MEDICAL CENTER

Duke University has received a grant of \$100,000 from the W. K. Kellogg Foundation, Battle Creek, Michigan, to support a broad new program in hospital administration.

The Kellogg funds have been awarded for the first five years of the program, which is aimed at raising the level of patient care through improvement of hospital management.

The new program makes Duke the only institution south of Richmond, Virginia, and east of the Mississippi River to offer the master's degree in hospital administration. Approximately 950 hospitals are located in this area.

* * *

A major research effort looking toward the transplantation of skin, kidneys and other tissues and organs from one human being to another is being planned for the Duke University Medical Center.

A grant of \$138,947 to support this program of basic studies for the next year has been awarded by the Division of General Medical Sciences, National Institutes of Health.

Dr. Dennis B. Amos will head the research program. Currently principal cancer research scientist at the Roswell Park Memorial Institute, Buffalo, New York, he will join the Duke faculty in August as professor of immunology.

* * *

Basic studies of how a hormone secreted by the pituitary gland affects the female reproductive cycle are under way at the Duke University Medical Center.

Dr. Jack L. Kostyo, associate professor of physiology, is conducting the research. His work is supported by a three-year grant of \$45,900 from the National Science Foundation.

* * *

New cinefluorographic equipment that will enable doctors to take simultaneous front and side view movies of the heart in action is being acquired by the Duke University Medical Center.

Dr. Henry D. McIntosh, director of the Cardiovascular Laboratory of the Department of Medicine at Duke, said that the equipment will permit studies of instant-to-instant changes in the blood volume and pressure inside chambers of the heart.

Working with Dr. McIntosh on the cinefluorography project are Dr. Robert E. Whalen, associate in medicine, and Dr. William F. Barry Jr., associate professor of radiology.

EDGECOMBE-NASH MEDICAL SOCIETY

Dr. Thomas Beath of Richmond, Virginia, was speaker at the meeting of the Edgecombe-Nash Medical Society held in Rocky Mount on July 11. His topic was "Selected Orthopedic Problems of General Medical Interest."

NEWS NOTES

Dr. Hugh Napper has announced the opening of his office for the practice of internal medicine and gastroenterology in the Doctor's Center, 301 Miller Street, Winston-Salem.

* * *

Dr. Thomas G. Hardy, Jr., has opened his office for the practice of general surgery in the Doctor's Center, 301 Miller Street, Winston-Salem.

A.M.A. NATIONAL CONGRESS ON MENTAL ILLNESS AND HEALTH

The American Medical Association will hold its first National Congress on Mental Illness and Health in Chicago, October 4-6.

The purpose of this Congress, held with the cooperation of the American Psychiatric Association and the support of the National Association for Mental Health, is to implement the broad, new mental health program developed by the A.M.A.'s Council on Mental Health.

The three days of the Congress will be devoted to planning specific activities implementing the A.M.A. program. Participants will meet in both topical and regional discussion groups to develop coordinated and continuing mental health programs to be carried out at the national, state, and local levels.

More detailed information on the Congress and copies of the AMA mental health program can be obtained from the Council on Mental Health, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

AMERICAN COLLEGE OF PHYSICIANS

A schedule of 15 postgraduate courses to be presented throughout the country during 1962-1963 has been announced by the American College of Physicians.

Among them is a course in "Basic Mechanisms of Internal Medicine" to be held at the Medical College of Virginia School of Medicine in Richmond, October 1-5; Dr. W. T. Thompson, Jr., director.

* * *

A second major scientific meeting has been added to the postgraduate education activities of the American College of Physicians.

Dr. Edward C. Rosenow, Jr., executive director of the college—which represents 11,000 specialists in internal medicine and related fields—announced plans for the first American College of

Physicians Sectional Meeting in the fall of 1963.

The Sectional Meeting, featuring three days of clinical sessions and combined basic science and clinical investigation sessions, will be held in Detroit, Michigan, November 21-23, 1963. It will augment the College's forty-fourth Annual Session, scheduled for April 1-5, 1963, in Denver, Colorado.

INTERNATIONAL COLLEGE OF SURGEONS

The International College of Surgeons will hold its thirteenth biennial congress at the Waldorf-Astoria Hotel, New York, September 9-13.

Further information on the Congress may be obtained by writing to: Thirteenth Biennial Congress Program, International College of Surgeons, 1516 North Lake Shore Drive, Chicago 10, Illinois.

ANIMAL CARE PANEL

The thirteenth annual meeting of the Animal Care Panel will be held at the Conrad Hilton Hotel in Chicago on October 2-3-4-5, 1962.

The program will include discussions on the care, management, procurement and production of animals used in biologic and medical research. In addition to the papers presented by the representatives of the leading research centers in this country Dr. Worden Lane-Petter of the Medical Research Council of England will report on "Laboratory Animal Developments in Europe, Asia and Australia". Dr. A. T. Elder, Deputy Chief Medical Officer of Northern Ireland will report on "Animal Research Programs in Northern Ireland".

Recent Saunders Books

W. B. SAUNDERS COMPANY features the following recent books in their full page advertisement appearing elsewhere in this issue:

KLINE and LEHMANN — HANDBOOK OF PSYCHIATRIC TREATMENT IN MEDICAL PRACTICE

Tells the non-specialist which psychiatric patients he should and should not treat—why he should treat them—and exactly how to manage these patients.

FINNESON — DIAGNOSIS AND MANAGEMENT OF PAIN SYNDROMES

Step-by-step management of commonly met problems of pain—ranging from headache to intractable pain due to cancer.

WILLIAMSON — OFFICE PROCEDURES

Step-by-step instructions with over 1,000 illustrations on how to perform office techniques—ranging from removal of excess cerumen to cautery of the cervix.

Book Reviews

Proceedings of the Conference on Genetic Polymorphisms and Geographic Variations in Disease. Edited by Baruch S. Blumberg. 229 pages. Price, \$5.75. New York: Grune & Stratton, 1962.

Medical ecology has many ramifications. The triangle of interaction between the host, the disease agent, and the environment has long been known in its broad outlines, but recent and current investigations continue to unearth new facets of these interactions.

This volume contains the nine formal papers and a condensation of the discussions presented at a conference held at the National Institutes of Health and sponsored by the National Institute of Arthritis and Metabolic Diseases and the National Heart Institute. The discussions are primarily directed toward evaluation of long-term environmental influences that may produce changes in the gene frequencies or constitutional types of various populations, and the relation of these changes to disease susceptibility or resistance. The principles of natural selection in relation to disease are summarized by William C. Boyd, and the development of certain important concepts in medical ecology and epidemiology are developed by John E. Gordon, John R. Paul and Abraham M. Lilienfeld in separate papers. There are detailed reviews of geographic and racial variations in the frequencies of the blood groups (T. Edward Reed), the hemoglobin types (James V. Neel), haptoglobins and transferrins (Eloise Giblett), glutathione instability of erythrocytes (Arno G. Motulsky) and amino acid excretion (Stanley M. Gartler).

Perhaps the best known example of the type of interaction discussed in this Symposium is afforded by the sickle cell trait. This trait is due to a single mutant gene, and in the carriers of this gene about half of the hemoglobin is of the normal type and about half is the abnormal hemoglobin S. It has been well demonstrated that carriers of this trait are highly resistant to malaria, and this fact explains the very high prevalence of this gene in populations living in areas where malaria has been endemic. However, carriers are also quite susceptible to a reduction in oxygen tension, and thrombosis of the splenic vein or other veins may occur in response to this stimulus. As a result, Negroes possessing the sickle cell gene were at a biologic advantage while living in an endemic malaria area, but are at a biologic disadvantage in high altitude flying or during surgical anesthesia.

This volume summarizes recent studies on many similar situations, and points out a number of areas of uncertainty where future research is needed. The volume is well indexed and has a well-selected bibliography, and the contributions are uniformly well-written.

Principles of Internal Medicine. Edition 4. Edited by T. R. Harrison, Raymond D. Adams, Ivan L. Barnett Jr., William H. Resnik, George W. Thorn, and M. M. Wintrobe. 1947 pages; index, 75 pages. Price, \$19.50, one volume; \$27.50, two volumes. New York, Toronto, London: The Blakiston Division of the McGraw-Hill Book Company, Inc., 1961.

The fourth edition of Harrison's "Principles of Internal Medicine" is almost 10 per cent larger than was the third edition. The additional material is not "padding," but indicates the rapid advance of medicine witnessed during the past four years. The editor has followed the same general plan used in the third edition, but has revised and added to the material used in the past.

The only regret this reviewer has in exchanging this latest edition for its predecessor is that the index is again printed in finer type than was used in the third edition, and fills 75 pages as compared with 57.

A new section, Disorders of the Integument, has been added to Part Two, Cardinal Manifestations of Disease.

It is, of course, impossible to review this monumental book in detail, but one can say of it that it covers adequately both the science and the art of internal medicine. The wide acceptance of Harrison's "Principles of Internal Medicine" as a standard reference justifies the old tribute: "Such popularity must be deserved."

Reprinted copies of a **Classification of Headache**, prepared by a committee appointed by the National Institute of Neurological Diseases and Blindness, are available to interested persons or groups on request. Single or quantities of reprints may be obtained without charge from the Information Office, NINDB Bethesda 14, Maryland.

Developed by a committee headed by Dr. Arnold P. Friedman of Cornell University, the classification is the result of efforts by the Institute to establish reliable criteria for evaluating drug therapy for headache.

Designed to assist medical practitioners, as well as research investigators, the classification was published in the **Journal of the American Medical Association**, March 3, 1962, and in the **Archives of Neurology**, March, 1962

* * *

Appointment of Marion Daniel Bailey as Program Director for Scientific Publication in the Extramural Program of the National Library of Medicine has been announced by the Public Health Service. Mr. Bailey was formerly Information Officer of the Division of General Medical Sciences at the National Institutes of Health.

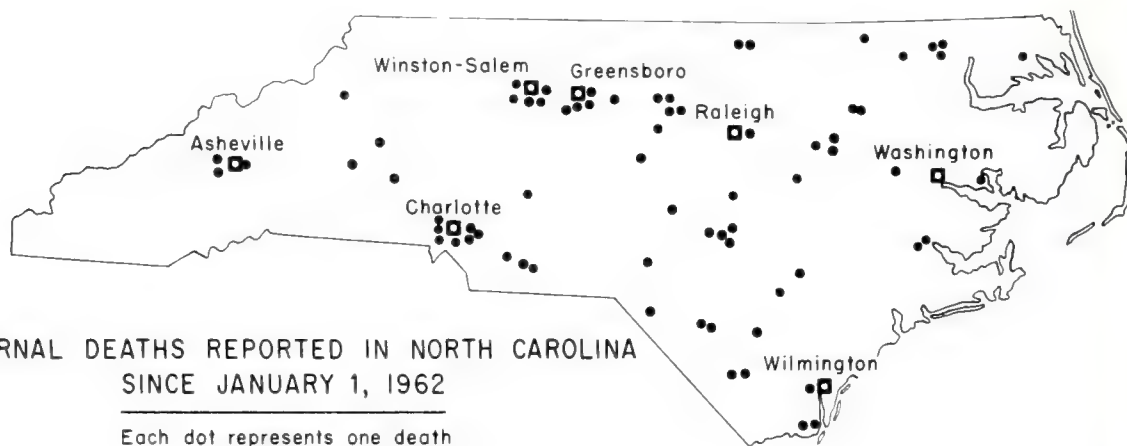
The new publication program will be a coordinated activity by the Public Health Service to help meet broad needs for the support of scientific publications in medicine and biology. The program will be carried out in close cooperation with the National Institutes of Health.

Darvon Reaffirmed as Nonaddicting Drug

The Bureau of Narcotics has published in the **Federal Register** of March 24, 1962, a ruling that reaffirms the status of Darvon® (dextro propoxyphene, Lilly) as a nonaddicting drug.

Introduced by Eli Lilly and Company in 1957, Darvon came into wide use as a nonaddicting oral analgesic. Following a hearing on Darvon's status as a nonnarcotic, the Bureau made a ruling which assures that the drug will continue to be available on a regular prescription.

Also taken into consideration, he said, was a resolution recommending such action adopted at the January, 1962, meeting of the Committee on Drug Addiction and Narcotics of the National Research Council.



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Dept. of Medicine

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Chapel Hill, N. C.



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The Treatment of Threatened and Habitual Abortion

LUTHER M. TALBERT, M.D.

and

JOHN A. MCGEE, M.D.

CHAPEL HILL

It is estimated that approximately 10 per cent of all pregnancies end in abortion. The actual incidence may be even higher, inasmuch as a number of very early abortions may be manifested only by an excessively heavy menstrual flow with no grossly apparent fetal tissue, and hence go unrecognized¹. In view of this huge pregnancy wastage, it is desirable to examine critically the current knowledge of the etiology and treatment of threatened and habitual abortion.

Etiology

Abortion may be produced by either an intrinsic defect in the fertilized ovum or by some defect in intrauterine environment. While it is true that several large series of aborted specimens have shown a high percentage of abnormalities in the ovum or fetus, it has not been possible by currently available methods to ascertain whether the fetal abnormalities were produced by a genetic defect in the fetus or by an abnormal uterine environment, with the fetal changes occurring as a secondary manifestation.

One of the best studies of this problem is that of Hertig¹. He studied 28 gravid uteri removed for therapeutic reasons before the patient had yet missed a menstrual period. Twelve of the 28 conceptuses studied had abnormalities incompatible with further development. The defects noted included ova with syncytiotrophoblast only, ova

without an embryo, ova without a chorionic cavity, and an ovum with hypoplastic trophoblast. In one case, malposition of the embryonic disc was associated with an extremely shallow implantation. Prior to implantation of the fetus, the most common abnormality noted was multinucleated cells in the morula stage of development. The endometrium was anatomically normal in all cases.

It must be noted, however, that anatomic normality of an organ does not necessarily indicate functional normality, and even a study such as Hertig's does not positively prove an inherent defect in the germ plasm as a cause of subsequent abortion. Biochemical changes in the endometrium affecting the nourishment of the developing ovum might not be apparent on microscopic examination².

Corner³ studied the ovaries and uteri of 10 sows of 10 days' or less gestation. In this group of sows 104 ova were shed, of which 15 were identified as degenerating blastocysts, 10 as unsegmented ova, and 24 were not found. On the basis of this study he suggested that embryonic morbidity arises at least in part from internal defects of the germ cells and embryos. The presence of a normally developing fetus alongside a degenerating ovum strongly suggests that environmental factors were not involved in the fetal loss.

That environmental factors may be responsible for many abortions has been suggested by Hughes². Histochemical studies of glycogen, vitamin C, alkaline phosphat-

Medical Society of the State of North Carolina, Raleigh, May 8, 1962.

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ase and glycogen-splitting enzymes in the endometria of patients with histories of repeated abortion showed a high incidence of biochemical abnormality. Eighty-six per cent of 52 patients with 3 or more previous abortions demonstrated some histochemical abnormality of the endometrium. He suggested the use of stilbestrol in early pregnancy as a prophylactic measure, and was able to show histochemical evidence of some benefit from it.

Javert⁴ has suggested that abortions may occur because of placental separation with increased capillary fragility, and has outlined an elaborate therapeutic regimen on this basis. There is some evidence that abortions may occur because of incompatibility between maternal and fetal tissues. McNeil⁵ has shown a higher incidence of abortion in ABO-incompatible pregnancies than in matings of an O male with an O female.

At the present time the question of environmental factors versus inherent germ plasm defects in abortions is not entirely settled. As previously mentioned, the fact that many aborted fetuses are pathologically abnormal is not helpful in this regard, inasmuch as the abnormalities may be produced by either an environmental deficiency or an inherent defect of the germ plasm.

Threatened Abortion

For the purposes of this presentation, threatened abortion will be defined as uterine bleeding occurring before the twentieth week of pregnancy, in the absence of severe cramps or cervical dilatation. It is obvious that this is a rather broad definition and that some patients, though classified as having symptoms of impending abortion, have in truth only implantation bleeding, which does not affect the prognosis of the pregnancy.

The incidence of subsequent abortion in patients with symptoms of threatened abortion has varied from 55 to 28 per cent. Because of this wide variation, studies of therapeutic regimens in patients with threatened abortion that do not include concomitant control groups selected on a double-blind

or random basis are essentially worthless from the standpoint of evaluating the method of treatment being tested.

The incidence of congenital anomalies associated with pregnancies which were threatened by abortion but continued to term is no higher than that associated with normal pregnancies⁷.

Many elaborate methods of treating threatened abortion have been suggested. Many of these methods are based on studies using as a control either previous experience in the same hospital or figures recorded by other investigators. It is obvious that any study, to be meaningful, must be controlled simultaneously in the double-blind manner referred to previously. Only thus can the bias of the investigator and any possible psychotherapeutic implications of the treatment be eliminated.

Perhaps the best approach to therapy would be to discuss the proposed methods in the following categories:

1. Rest

Diddle⁸, in 1953, reported a large group of patients, some of whom were treated with bed rest alone and others of whom remained ambulatory as usual. He was unable to find any difference in the subsequent abortion rate between the two groups. In fact, on a theoretical basis it would be difficult to justify enforced bed rest over a long period of time in cases of threatened abortion. It has been amply demonstrated that by the time symptoms of threatened abortion appear, many of these patients will already have a dead fetus. The previously mentioned studies of Hertig, showing fetal abnormalities prior to the first missed period, would also suggest that in these patients little will be gained by bed rest. We are aware of no evidence that physical activity is in any way related to uterine motility which might predispose to subsequent abortion. A 24-hour period of limited activity, however, is harmless and may be of benefit to the patient's emotional equilibrium, especially if she is overanxious about her symptoms.

2. Hormonal therapy

a. *Thyroid*: Heineman⁹ demonstrated a rise in the serum precipitable iodine (S.P.I.)

concentration during pregnancy. The rise apparently occurred quite early, frequently being noted as early as three to six weeks following conception. A progressive rise after this period was not demonstrated. S.P.I. levels ranged from 6.2 to 11.2 gamma per 100 ml. of serum, rapidly falling to pre-pregnancy levels following delivery. Heineman suggested that this change was probably an effect of estrogen, as he was able to elevate S.P.I. levels by injecting large doses of estradiol. The rise was later explained on the basis of an increase in thyroxin-binding protein in the plasma secondary to rising estrogen levels¹⁰.

Patients who are destined to abort have been shown to have low levels of S.P.I.⁹. It was therefore suggested that patients with symptoms of threatened abortion might benefit from thyroid therapy. In view of later evidence suggesting that the rise in S.P.I. is due to increased estrogen, levels of this hormone in the blood probably have no real relationship to abortion other than being a secondary manifestation of the impending event. It seems reasonable to restrict thyroid therapy in pregnancy to those patients with demonstrated hypothyroidism.

b. *Estrogen*: Smith¹¹ has suggested increasing doses of diethylstilbestrol throughout pregnancy in cases of habitual abortion. Since other investigators have not been able to confirm his results, this method of treatment must await further evaluation.

c. *Progesterone*: Since the advent of orally administered progestational agents, there has been a surge of enthusiasm for the use of these compounds in patients with threatened and habitual abortion. The fact that no adequately controlled study has shown any particular benefit from these agents has not limited their wide use.

It is well known that some compounds exerting a progestational effect also have potent androgenic properties, and have been implicated in the masculinization of either or both the urogenital sinus and the external genitalia in female children. Wilkins¹², in 1958, reported 21 cases of female pseudohermaphroditism without an associated congenital adrenal hyperplasia. The

diagnosis was established by partial masculinization of the external genitalia in the absence of any increase of the 17-ketosteroids or pregnanedriol. Sex chromatin was normal in all. The mothers of 15 of these children were treated with synthetic progestins in early pregnancy, usually starting at four to six weeks. Grumbach¹³, in 1959, reported an additional group of 18 patients with similar problems associated with the administration of synthetic progestins during pregnancy. Nine of these patients had received norethindrone (Norlutin), 1 had received norethynodred (Enovid), and 8 others had received 17-alpha-ethinyl-testosterone.

The abnormalities produced by the oral progestins vary from simple enlargement of the clitoris to labioscrotal fusion with a urogenital sinus. Apparently the critical factor in determining the abnormality is the gestational age of the fetus at the time the compound is administered. Labioscrotal fusion and a urogenital sinus have been seen only in those patients who were exposed to androgens prior to the thirteenth week of pregnancy.

It therefore seems advisable, in view of the potential harmful effects of some of the progestational compounds, and in view of their questionable therapeutic value, that only those compounds which have not been implicated in masculinization of the female fetus be given during pregnancy. Medroxyprogesterone acetate (Provera) and hydroxyprogesterone caproate (Delalutin) have not as yet been shown to produce changes in the genitalia of the female fetus. Unfortunately the latter is not effective when given orally; however, it is a long-acting compound when administered intramuscularly and can probably be given in biweekly doses with adequate effect. The effectiveness of any of these compounds in a patient who is threatening to abort is questionable at the present time.

d. *Androgenic compounds*: In the past androgens have been occasionally administered to women with bleeding in early pregnancy. They have no place in the management of threatened or habitual abortion in

modern obstetrics, and their use should be abandoned.

e. *Adrenal hormones*: Except in the patient with proven adrenal insufficiency, there is no valid indication for the use of adrenal hormones in the management of threatened abortion.

Habitual Abortion

Habitual abortion is herein defined as three or more spontaneous abortions with no intervening normal pregnancies. The incidence varies from 1 to 5 per cent, depending on the population studied. The fact that the patient has had three or more consecutive spontaneous abortions suggests but does not prove some repetitive factor. Wall¹⁴, in careful pathologic studies of two or more specimens from each of 100 consecutive habitual aborters, reported that the etiology was repeated in 58 cases, or 58 per cent of the total. Of patients in whom the etiology was the same in two or more abortions, pathologic ova were found in 62 per cent. It is significant that 42 of the 100 patients apparently did not abort twice for the same reason¹⁴.

As said previously, the mere presence of a defective fetus does not necessarily indicate a genetic abnormality or "germ plasm defect," since such changes may be associated with environmental factors. It would seem unwise, therefore, at the present moment to form any firm opinions based upon pathologic studies, inasmuch as the same pathologic changes may be produced by any one of several factors.

The study and treatment of the patient suffering from habitual abortion should begin well before conception. In addition to the usual complete history and physical examination, routine laboratory studies, including a complete blood count, urinalysis, and Papanicolaou smears, should be performed. Thyroid function should be evaluated by means of I¹³¹ uptake, protein-bound iodine, or butanol-extractable iodine determinations. Endometrial biopsies should be obtained near the time of the expected menses to evaluate the adequacy of the endometrium.

Hysterosalpingograms should be done to detect any abnormality of the uterus or endometrial cavity. The patient's nutritional status should be thoroughly reviewed and any apparent nutritional defects should be corrected prior to attempting pregnancy.

1. Uterine or cervical abnormalities

a. *Double uterus*: Jones¹⁵ reported a group of patients who were treated surgically for uterine abnormalities. He insisted that before any attempt at operative repair it should be determined that the patient is an habitual aborter as strictly defined by three or more consecutive abortions, and other causes of repetitive abortions such as luteal phase defects or other metabolic abnormalities should be eliminated. If other possible etiologic factors are eliminated, reasonably good results can be expected from an operative procedure on the uterus. This is accomplished by a modification of the original Strassman technique.

b. *Incompetent cervix*: These patients are identified by a history of repeated abortions occurring in the second trimester. The abortion is not usually preceded by bleeding and is characterized by painless dilatation of the cervix, followed by rupture of the membranes and spontaneous expulsion of the conceptus. This defect may result either from a congenital abnormality of the cervix, or from trauma such as that caused by too vigorous dilatation of the cervix at the time of dilatation and curettage or by previous obstetric manipulations.

There are two possible approaches to the repair of the incompetent cervix. Lash¹⁷ has suggested that it be done in the nonpregnant state by dissecting the bladder off the lower uterine segment and cervix, then excising a wedge of cervical tissue at the level of the internal os, and closing the defect with interrupted chromic catgut sutures. This procedure apparently yields satisfactory results in his hands.

The syndrome can also be treated in the pregnant state by a simple procedure which consists of placing a pursestring suture of mersilene or other material around the cervix at the level of the internal os¹⁶. This method has given good results in the hands

of Barter and others who have used a similar procedure.

c. *Leiomyomata uteri*: Leiomyomas are not a common etiologic factor in abortion. Every obstetrician has, without undue difficulty, performed deliveries at term in patients having large fibroids. Occasionally, however, a patient with submucous myomas aborts because of the lesion. In preoperative evaluation for myomectomy, one should rule out as far as possible any other abnormalities which could be responsible.

The method of delivery following myomectomy depends upon the extent to which the myometrium was damaged at the time of operation. The incidence of uterine rupture during pregnancy or labor following myomectomy is just as high as, if not higher than, that following cesarean section, if the uterine cavity has been entered. If the myometrium has been deeply incised, cesarean section is probably the safest route for delivery.

d. *Hormone therapy*. The comments concerning hormone therapy in abortion are just as applicable in habitual abortion. Estrogens probably have little or no place in the management of the patient with habitual abortion.

Thyroid therapy in the absence of hypothyroidism is of no value.

There probably are patients who abort repeatedly because of inadequate production of progesterone. Several methods are available for evaluating the metabolism of this hormone. Probably the best of these is determination of the urinary pregnandiol. Unfortunately this method involves considerable time and expense¹⁸. Vaginal cytologic changes or cervical mucus arborization tests, although not as accurate, are simpler and more readily available.

If progesterone deficiency is suspected, the patient should be placed on progestins at the initiation of pregnancy and maintained on one of these drugs until term. Probably medroxyprogesterone acetate (Provera) or hydroxyprogesterone caproate (Delalutin) are the drugs of choice, and should be given in adequate doses.

Psychotherapy: Mann¹⁹ has reported that of a group of patients with habitual abor-

tion who were treated by psychotherapy alone, 84 per cent delivered viable infants at term.

A review of the various regimens that have been tried in patients with habitual abortion discloses that most of them are successful in 70 to 80 per cent of the cases. One would suspect, therefore, that many patients are helped more by the psychotherapeutic effect of close attention by the physician than by the medication being tested.

Goldzieher⁶ has recently reviewed the therapy of recurrent abortion. He found that only 23.7 per cent of patients with three previous consecutive abortions actually aborted with subsequent pregnancies. These patients were receiving no hormonal therapy. This finding is in disagreement with the statement by Malpas²⁰ that the patient who had aborted three previous pregnancies had an 87.3 per cent chance to abort a subsequent pregnancy. The figures quoted by Malpas were largely theoretical and have several times been shown to be erroneous in terms of actual experience. Claims of therapeutic success in habitual abortion must be based on concurrent and comparable control groups and not on previous obstetric history or theoretical calculations with no basis in actual experience. It is doubtful that hormonal therapy administered to patients with habitual abortion will improve the salvage rate significantly except in selected patients whose abortions are associated with low levels of progesterone production by the placenta and/or corpus luteum.

Conclusions

1. The therapy of threatened abortion is unsatisfactory at best, and probably effective treatment is available only for the small group of patients with progesterone deficiency who can be treated by means of one of the synthetic progestins.

2. The patient with habitual abortion deserves thorough study with careful attention to all details of her general health and reproductive organs, and specific etiologic factors discovered should be corrected by appropriate therapy.

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* * *

Inevitable, Incomplete, and Septic Abortion: With Emphasis on the Endotoxic Syndrome

FRANK C. GREISS, M.D.

WINSTON-SALEM

Abortion is the termination of pregnancy at any time before the fetus has attained a stage of viability; in North Carolina, 20 weeks of gestation or less. We shall adhere to this definition in the present discussion except for those instances of puerperal sepsis complicating premature rupture of the membranes.

Inevitable and incomplete abortion are but descriptive stages in the irreversible process of expulsion of products of conception. When uterine contractions have become sufficiently intense to dilate the cervix, an abortion is termed inevitable even

though tissue may be present at the internal os. After partial passage of the products of conception through the cervix, the abortion is termed incomplete. In general, the more advanced the pregnancy, the more closely an abortion will simulate labor and delivery, often with spontaneous, complete passage of the conceptus. Thus, many abortions progress rapidly from the inevitable to the complete status, while others, especially those occurring at four to six weeks of gestation, frequently are expelled incompletely.

Treatment of Uncomplicated Abortion

The importance of the initial examination and accurate appraisal of the phase of the abortion cannot be overemphasized, particularly the evaluation of the completeness of expelled tissue. All examinations should

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Read before the Section on Obstetrics and Gynecology, Medical Society of the State of North Carolina, Raleigh, May 8, 1962.

be performed under sterile conditions. Tissue protruding from the external cervical os may be grasped with sponge forceps and with gentle traction the entire placenta may often be delivered. When this maneuver fails and bleeding is minimal, it is best to allow uterine contractions to complete the expulsive process rather than forcibly tearing the placenta.

When inevitable or incomplete abortion is diagnosed, the patient should be hospitalized, the adequacy of her blood count established, and her blood typed and cross-matched. Because of the grave complication of sepsis with endotoxic shock, current opinion is toward more active management of abortions once they have progressed to the inevitable stage. Pitocin given intramuscularly or by intravenous drip very often results in completion of an inevitable or an incomplete abortion. We have had excellent results from intramuscular pitocin, 5 units every 30 minutes for six doses. Should the conceptus be expelled, the tissue must be carefully evaluated to determine its integrity.

Completion of the abortion process is attended by marked diminution or cessation of cramping and vaginal bleeding. This is often an excellent test for confirming the completeness of the process. If bleeding and cramping cease without visible passage of tissue, the conceptus frequently may be found in the vagina. *When an abortion is judged complete by the above criteria, we do not believe that uterine curettement is indicated.* However, if one, or possibly two courses of oxytocin do not accomplish expulsion, or if the expelled tissue is judged incomplete by either or both inspection and the patient's clinical behavior, the uterus should be surgically evacuated without delay.

A basic principle of obstetrics should be remembered in the management of patients with abortion. A partially separated placenta causes bleeding and often profuse hemorrhage. With complete placental detachment, hemorrhage from the placental site is usually controlled effectively by myometrial retraction unless the placenta prevents this by incomplete expulsion. At

the initial examination or during medical induction, profuse bleeding often can be controlled by traction and removal of detached products of conception from a distended cervix. Even the incomplete removal of placental tissue from the cervix may control heavy bleeding, although some tissue is known to remain. If uterine hemorrhage cannot be controlled in this manner, blood loss should be replaced and the uterus surgically evacuated immediately.

Septic Abortion and the Endotoxic Syndrome

Although infection has long been considered a grave complication of abortion, the advent of sulfonamide and antibiotic therapy removed the more ominous aspects of puerperal sepsis and, indeed, engendered a feeling of complacency, especially in those too young to have experienced the futility of preantibiotic maternal tragedy. Within the past 10 years, however, the rare uterine gas gangrene has been emphasized, and a previously unrecognized entity, endotoxic shock, has been described. Endotoxic shock complicating septic abortion carries with it a mortality rate of such magnitude (over 50 per cent) that basic concepts of the management of all infected abortions have become more active, in an effort to prevent its occurrence.

One of the earliest reports of endotoxic shock in obstetrics was that of Studdiford and Douglas in 1956. They described 7 cases of septic vascular collapse complicating self-induced second-trimester rupture of the membranes, and observed a placental lesion consisting of villous vessels distended with gram-negative bacteria without adjacent stromal reaction. Subsequently, McKay and his associates² reported 6 maternal deaths, 3 complicating septic abortion, and 3 following spontaneous premature rupture of the membranes in the third trimester, and noted their similarity to the generalized Schwartzman reaction described in rabbits. Today the clinical aspects of the endotoxic syndrome are well described, and Gilbert³ has carefully reviewed the pathophysiologic mechanisms of the hemodynamic effects of endotoxin.

The specific etiologic factor is a complex lipopolysaccharide (endotoxin) liberated principally but not exclusively from gram-negative bacteria. The most frequent offending organisms are *Escherichia coli* and *Aerobacter aerogenes*, and the syndrome is described as the Schwartzman reaction. In nonpregnant rabbits a second small intravenous dose of bacterial endotoxin administered 24 hours after an initial sensitizing dose causes generalized microscopic thrombosis, bilateral renal cortical necrosis, and death. By some unknown mechanism, the initial sensitizing dose becomes unnecessary during pregnancy, so that a single intravenous dose of endotoxin causes the reaction.

In humans, the syndrome has been observed after small doses of typhoid vaccine or of purified endotoxin given for therapeutic purposes, after the intravenous administration of blood or solutions contaminated with gram-negative bacteria, and in patients with serious or overwhelming infections^{3,4}. The initial chill and temperature spike may be accompanied by diarrhea and generalized muscle aching. Usually a mild rise in blood pressure accompanies the onset of chill with hypotension developing as the chill subsides. Hypotension may be delayed up to 48 hours, however. In mild cases, the chill is followed by a flushing phase, with warm extremities and a full pulse in the presence of hypotension. In more serious reactions, or as the process progresses, the pulse is weak or not palpable, the extremities are cold, and cyanosis, shallow rapid respiration, changes in sensorium, and oliguria develop. Melby and Spink³ observed that those patients who died in severe shock showed ashen gray, cold, moist skin with mottling and cyanosis, whereas survivors had suffered warm skin and a full pulse in the presence of hypotension. Initial leukopenia is followed by leukocytosis, hypofibrinogenemia, reduced platelets, and prolonged coagulation time.

In fatal cases, death occurs in from one to four days. Autopsy findings in man are surprisingly few and usually comprise the following: pulmonary capillary congestion and edema; mild swelling of hepatic cells

with focal necrosis; sporadic gastrointestinal petechiae without ulceration; petechial hemorrhages in the myocardium; pale renal cortices with heme casts and red blood cells in the renal tubules and adrenal glands without hemorrhage.

General mechanisms of the hemodynamic effects of endotoxin have been observed in animals and partially confirmed in man³. They may be summarized as an initial increase followed by a profound fall in total peripheral resistance (TPR). Initial constriction of venules and capillaries and biphasic constriction followed by dilatation of precapillary arterioles increases TPR and by increasing inflow and decreasing outflow effects a redistribution of blood by trapping it in the periphery. The ensuing decreased venous return lowers cardiac output and by this mechanism causes hypotension. The effects are primarily vascular, with no change in myocardial work capacity or in total blood volume.

In man, decreased venous return is confirmed by the following signs: (1) right auricular blood pressure is low; (2) blood transfusion may improve blood pressure; and (3) blood pressure is sensitive to postural changes. Subsequently peripheral vessels dilate and TPR falls, further aggravating the hypotension.

Although precise mechanisms of the hemodynamic effects are still incomplete, the following points have bearing on therapy. In the presence of endotoxin, catecholamine effects are altered and it has been shown that shock may be produced by epinephrine or norepinephrine alone. Large doses of epinephrine can produce tissue damage similar to that in endotoxic shock and may even cause renal cortical necrosis. It is not surprising that antiadrenergic drugs (vasodilators) may exert a protective action in some instances of shock, or that exogenous vasopressors may aggravate endotoxic shock early while improving it later during the vasodilatation phase³.

Cortisone or hydrocortisone and more recently d-aldosterone have been shown to exert a protective action and prolong life with endotoxic insult in experimental animals^{3,5}. The mechanism of these effects is

vague, since adrenal cortical insufficiency is not a component of the syndrome. In man, circulating levels of hydrocortisone are actually increased, and can be increased even more by ACTH stimulation.

Treatment

Patients with septic abortion, inevitable or incomplete, should be hospitalized, and baseline blood tests, analysis of the urine, and samples of uterine discharge for culture and sensitivities obtained. Excessive hemolysis, jaundice, leukopenia, uterine crepitation, or hypotension should arouse suspicion of clostridial infection or circulating endotoxins. The intravenous administration of broad spectrum antibiotics in high dosage should be started and blood loss replaced immediately. The simultaneous intravenous administration of oxytocin may accomplish expulsion of the conceptus during the initial 6 to 12 hours of therapy.

After 12 to 18 hours, retained products of conception should be removed operatively and antibiotics continued. Vigorous antimicrobial therapy and uterine evacuation should control infection rapidly and materially reduce the cost and duration of hospitalization as well as the possibility of more serious complications.

Successful treatment of endotoxic shock depends on early recognition and vigorous treatment^{1,2,4}. Therapy is directed first toward control of shock and infection; then toward renal failure. Specimens for bacterial culture and sensitivities should be obtained initially, followed by large parenteral doses of broad spectrum antibiotics. Tetracycline or chloromycetin together with streptomycin or kannamycin have been effective. The blood pressure must be restored promptly to prevent irreversible damage to vital organs. Fresh blood should be given to combat anemia. Intravenous infusions of Neosynephrine, Aramine or Levophed are variously effective, and often combinations of these drugs are necessary. Recently, angiotensin II, alone or in combination with other vasopressor agents, has been described as effective⁵. Infected secundines, the source of the endotoxin, should be removed promptly.

If shock persists, remaining foci of endotoxin-elaborating bacteria should be suspected. In such cases, hysterectomy may be life saving; however, it should be performed within 12 hours of the onset of hypotension. Most authors feel that hysterectomy performed after this time only hastens the demise of an already gravely ill patient.

Intravenous cortisone should be given promptly after the onset of hypotension and maintained. While its beneficial effects in man are debatable, experimental evidence indicates its usage.

If the infection and shock are controlled, one usually is still faced with the problem of renal shutdown. Therefore, all medication—especially intravenous infusions during the shock phase—must be administered with this possibility in mind, in order to minimize subsequent circulatory overload and hyperkalemia.

Illustrative case

The following case abstract from the files of the North Carolina Committee on Maternal Mortality emphasizes the gravity and rapid progression of the endotoxic syndrome. It is difficult to imagine any treatment that might have altered the inexorable course of the process.

A 30 year old married white woman, gravida IV, para III, had her last menstrual period October 6, 1959. The pregnancy was uncomplicated. Prenatal care began at six weeks' gestation, and there was no history of instrumentation.

Without premonitory symptoms, the patient awoke at 4:00 a.m. on January 23, 1960, with headache, generalized aching, nausea, and severe low backache. She felt feverish and noted a pink vaginal discharge. These symptoms persisted during the day, with occasional vomiting and onset of lower abdominal cramping. At 7:00 p.m., she had a severe shaking chill, was seen by her physician, and was hospitalized immediately.

On admission the temperature was 103 F., pulse 120 per minute, respirations 24 per minute, and blood pressure 116 systolic, 68 diastolic. She appeared acutely ill and mildly dehydrated, but was rational and cooperative. The only other positive physical findings were a tender uterus compatible with the duration of pregnancy, a pink nonpurulent discharge at the external cervical os, and moderate bilateral adnexal tenderness. The hemoglobin was 11.5 Gm. per 100 ml., and white blood cell count 4800 per cubic millimeter. The differential count showed 87 per cent

segmented neutrophils and 12 per cent lymphocytes. Analysis of the urine was negative except for traces of albumin and acetone.

At 9:30 p.m., an intravenous infusion of 500 mg. of tetracycline in 1000 cc. of a 5 per cent solution of glucose was started. Two hours later the patient experienced another shaking chill and a temperature spike to 104.8 F. Almost immediately the blood pressure fell to 60 systolic, 0 diastolic. At 2:00 a.m. on January 24, 1960, the temperature was 102 F., the blood pressure 80 systolic, 60 diastolic, and pelvic examination showed a closed but now effaced cervix. At 4:00 a.m. an unmacerated fetus was expelled spontaneously, but the placenta was retained. The blood pressure was 70 systolic, 40 diastolic, and Pitocin was added to the intravenous infusion. One hour later the vital signs were unchanged except for a temperature of 96.2 F.

At 5:30 a.m. placental tissue was noted at the introitus, accompanied by mild vaginal bleeding. Friable, mushy placenta was removed from the vagina and cervical os, after which the blood pressure was unobtainable. Infusion of 500 cc. of whole blood and use of the Trendelenberg position failed to produce a measurable blood pressure, and a systolic pressure of 40 mm. Hg. was obtained only with a Levophed infusion at 70 drops per minute. The patient went rapidly downhill and expired at 8:00 a.m., 28 hours after the onset of symptoms.

The following autopsy findings were reported: intense congestion of the lungs with moderate edema and alveolar hemorrhage; early central lobular hepatic necrosis with intense sinusoidal congestion; congestion of the glomerular loops; edematous myometrium; hemorrhagic and necrotic placental tissue containing gram-positive cocci and gram-negative bacilli within the uterine cavity. The expelled placenta showed a diffuse, intense inflammatory reaction with colonies of large bacilli. *E. coli* was cultured from the uterus. The fetus showed no gross evidence of infection.

Uterine Gas Gangrene?

Uterine gas gangrene is generally associated with criminal abortion. For its development, *Clostridium welchii* must be introduced into the uterus, dead tissue must be present during the 12-hour incubation period, and damaged maternal tissue must be exposed to the bacteria. Symptomatology and physical findings will depend on the progressive extent and severity of the process from fetal emphysema through endometritis, physometra, and peritonitis to generalized sepsis with metastatic gas gangrene. Diagnosis depends on the presence of uterine crepitation or x-ray demonstration of

uterine gas, a characteristic sweet odor of the uterine discharge, and recovery of the organism on smear and culture. Characteristically, anemia out of proportion to blood loss, marked hemolysis, and jaundice are present.

Therapy is based on early diagnosis, removal of dead tissue, intensive antibiotic therapy with penicillin, chlortetracycline and massive administration of polyvalent gas gangrene antitoxin. Hysterectomy in such infections is probably contraindicated since the surgery removes peritoneal barriers, exposes susceptible skeletal muscle to the organism, and leaves more necrotic tissue upon which the organism can grow. The early case of gas gangrene that is cured by surgery undoubtedly could be cured medically with less danger and trauma to the patient. The severe, metastatic case that does not respond to prompt, intense medication would in all probability not survive surgery.

Summary

General principles in the management of inevitable and incomplete abortion have been reviewed. The endotoxic syndrome has been described as a complication of septic abortion or chorioamnionitis following premature rupture of the membranes. The rare complication of uterine gas gangrene has been described. To prevent the occurrence of these entities, current management of infected and clean abortions has become more active. If either the endotoxic syndrome or gas gangrene develops, prompt recognition and vigorous treatment are essential to maternal survival.

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The Surgical Management of Unilateral Pleural Effusion

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CHARLOTTE

Unilateral pleural effusion has always presented a problem in diagnosis, and until recent years was considered a nonsurgical entity. It was generally accepted as tuberculous in origin until proved otherwise. In 1952 Roper and Waring¹ reported that 66 per cent of their patients having pleurisy with effusion had active tuberculosis within five years. Stead and others² showed that this development was usually due to the presence of parenchymal disease at the time of the pleural effusion. In view of this knowledge, many patients with undiagnosed pleural effusion have been confined to sanatoria for long-term treatment of tuberculosis.

Clinical evaluations of pleural effusion by skin-testing, sputum analyses, examinations of pleural fluid, bronchoscopy, and scalene lymph node biopsy have left much to be desired. In the past several years, needle biopsy of the pleura has proved helpful³. The disadvantage of this technique has been the difficulty in obtaining sufficient representative tissue.

More recently some investigators⁴ have advocated a small thoracotomy, even under local anesthesia, with open biopsy of the pleura. This technique, although often diagnostic, has sometimes failed to yield adequate tissue and has offered little toward correction of the effusion. Several investigators⁵ have advised open thoracotomy for diagnosis and treatment of persistent pleural effusion. The latter approach has been used in the present study.

Review of Cases

The present report concerns a group of 20 patients with previously undiagnosed unilateral pleural effusion upon whom open thoracotomy and pulmonary decortication were done. Only 4 of these patients were

found to have tuberculous pleurisy. One had metastatic carcinoma and the remaining 15 had nonspecific inflammation of the pleura. Fifteen men and five women with ages ranging from 23 to 76 years composed this group. Symptoms often originated with a respiratory tract infection two to six weeks before hospitalization, although one patient had had symptoms for two days and another for one and a half years. Chest pain and fever were the predominant symptoms. Dyspnea, cough, and weakness were frequent complaints.

Chest roentgenograms in all patients showed varying degrees of pleural effusion, 10 on the right and 10 on the left. The mediastinum was often shifted to the contralateral side by massive effusions. As fluid was withdrawn by thoracenteses and trapping of the lung by pleural peels occurred, the mediastinum shifted to the affected side, accompanied by elevation of the diaphragm. These latter two findings were caused by progressive imprisonment and collapse of underlying lung, and indeed were considered as indications for pulmonary decortication.

Multiple thoracenteses were done in all cases but one. The fluid was thin and straw-colored in all but two. The two blood-tinged effusions were produced by tuberculosis in one and metastatic carcinoma in the other. Examination of the pleural fluid following each thoracentesis failed to reveal microorganisms including acid-fast bacilli, or cancer cells. Bronchoscopy and sputum studies were likewise uniformly negative.

Exploratory thoracotomy was carried out in each case, after thoracenteses failed to abolish the fluid and obliterate the pleural space.

Findings at operation were rather similar. Residual pleural fluid was always present in varying amounts. Pulmonary collapse was uniformly noted and was caused by imprisonment and infolding by fibrinous,

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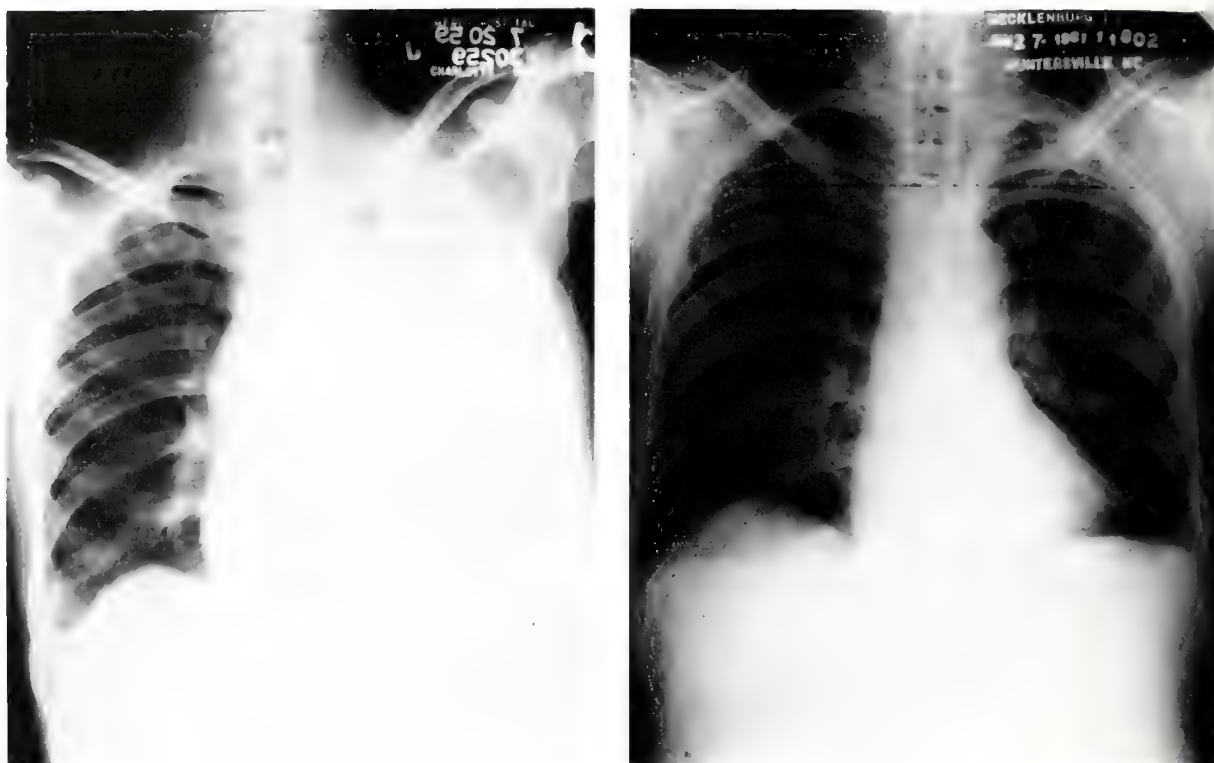


Figure 1

(Left) Roentgenogram showing massive pleural effusion caused by tuberculosis. Needle aspiration failed to obliterate the pleural space.

(Right) Roentgenogram obtained two years following decortication and antituberculosis therapy.

gelatinous or fibrous pleural peels. The 4 cases of tuberculous pleurisy showed typical small, pearly nodules scattered over the visceral and parietal pleurae. The one case of cancer revealed thick peels of malignant tissue over the pleural surfaces. This malignant tissue decorticated easily, allowing for full re-expansion of a normal underlying lung. The primary site of this malignancy was not determined.

Pulmonary decortication was successfully accomplished in all 20 patients by techniques previously described⁶. In several cases, areas of rather normal-appearing lung revealed an accordion-like infolding which, when released, added considerable functioning lung volume. Two and sometimes three intercostal tubes were inserted for underwater drainage at the completion of operation.

The postoperative course of all 20 patients was uncomplicated. A few required one or, at most, two thoracenteses during

the immediate postoperative period. No one showed recurrence of effusion after discharge from the hospital. The 4 patients with tuberculous pleurisy were transferred to the sanatorium and 3 were discharged well after several months of drug therapy (figs. 1 and 2). One patient with tuberculous pleurisy was too recently operated on to evaluate, but thus far is doing well. The one patient with metastatic cancer had relief of effusion and dyspnea for one year before death.

Conclusions

It is well recognized that recurrent unilateral pleural effusion presents a diagnostic and therapeutic problem. Open thoracotomy is not recommended for every patient with pleural effusion. Those patients whose effusion clears up after one or two thoracenteses and show a fully expanded, normal-appearing lung are managed conservatively.

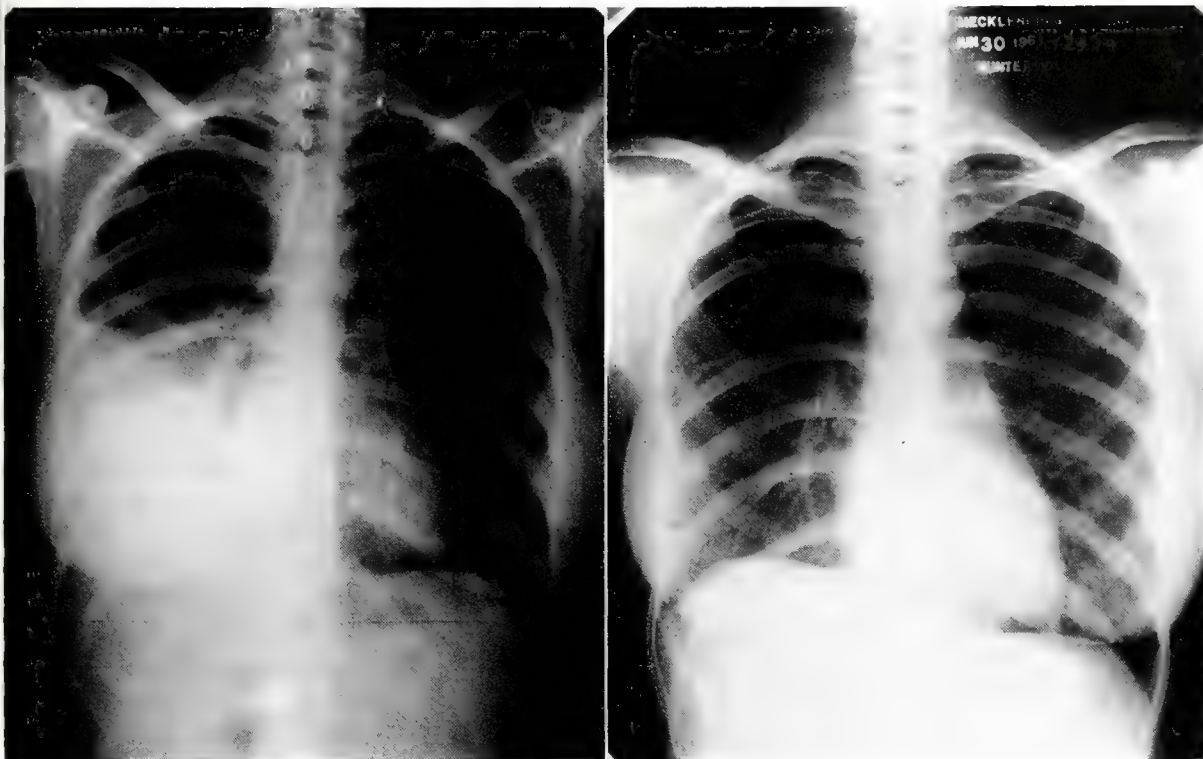


Figure 2

(Left) Roentgenogram showing pleurisy with effusion. Needle biopsies failed to abolish the fluid.

(Right) Roentgenogram obtained seven months following decortication and antituberculosis therapy.

Recurrence of pleural effusion despite repeated aspiration of fluid is a mechanical rather than a bacteriologic or cytologic problem. The reaccumulation of fluid indicates the presence of a space problem created by imprisoned lung. No matter what the etiology, this situation is best managed by pulmonary decortication with rehabilitation of the crippled lung, obliteration of the pleural space, and cessation of fluid formation. Even tuberculous pleurisy with persistent effusion is managed safely by this approach. Those patients who prove to be nontuberculous are returned to work early and are saved from the tremendous waste of long-term sanatorium care.

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Bedwetters and Bladder Necks

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Enuresis may often be the first sign of obstructive uropathy in a child. Pediatric authorities list organic urologic disease as the most important cause of persistent bedwetting; however, only about 10 per cent of the cases are attributed to organic cause¹. Recent experience and advances in urologic diagnostic techniques indicate that this general impression may be incorrect, and that bedwetting may be due to varying degrees of bladder outlet obstruction in many more instances than were previously suspected².

The normal child will be toilet-trained by the age of 3 or 4 years. Not uncommonly, trained children may have episodes of intermittent bedwetting after this age, and it is not unreasonable that such transient episodes may be due to emotional stress, sibling jealousy, personality disorders, or lack of parental encouragement. Occasionally such transient bedwetting may be induced by temporary infections and inflammatory conditions such as vaginitis, allergy, phimosis and paraphimosis, balanitis, and even intestinal parasites, particularly pinworms. The obvious inflammatory and infectious conditions are readily discernible, and appropriate treatment will relieve the symptom of enuresis. Similarly, the family physician and pediatrician are usually familiar with the family situation and therefore able to detect the conditions of emotional stress which may precipitate the episodic bedwetting.

Unfortunately, there are many organic diseases of serious character which may induce persistent bedwetting. Children with congenital neurologic deficits are apt to be tragically afflicted with urologic complications, including bedwetting. Enuresis generally accompanies spina bifida, lumbosacral myelodysplasia, meningomyelocele, congenital hydrocephalus, filum terminale syndrome, and megalobladder or megacystis

(analogous to congenital megacolon or Hirschsprung's disease).

Mental retardation and cretinism may also be accompanied by chronic bedwetting. Juvenile diabetes mellitus or diabetes insipidus may precipitate it. In some cases of cerebral palsy and epilepsy, bedwetting may be a prominent feature.

Bladder Outlet Obstruction

Without question, the most common causes of persistent bedwetting are urologic malformations, particularly of the bladder outlet³. Among these, congenital contracture of the vesical neck is most prominent and must be considered in detail. Lesser causes of obstruction include congenital urethral valves in both the male and female, idiopathic hypertrophy of the verumontanum, synechiae vulvae or labial fusion, and meatal stenosis in both boys and girls⁴. Treatment of these latter conditions is generally of a minor surgical nature, and results are excellent⁵.

While bedwetting may be the first and foremost symptom of bladder outlet obstruction in children, other symptoms may be of a more serious nature, occurring later in the disease process. Decrease in the size and force of the urinary stream, frequency of urination, burning on urination, hesitancy and dribbling, and eventually lower abdominal pain, hematuria, and gross pyuria may be noted. This entire complex of symptomatology may be the result of prolonged partial obstruction, with secondary stagnation of urine, progressive dilatation of the lower and upper tracts, urinary infection, and inflammatory reaction. Undiagnosed and untreated, the syndrome may culminate in progressive pyelonephritis and hydronephrosis with attendant renal failure.

The prime etiology in bladder outlet obstruction remains congenital contracture of the vesical neck (stenosis of the bladder neck or internal sphincter). In a study of 150 children with proven bladder outlet ob-

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struction, 98 per cent were shown to have contracture of the bladder neck. The etiology of this condition remains obscure, but it appears to be much more common than congenital ureteropelvic junction stricture, pyloric stenosis, anal stenosis, or other congenital conditions associated with narrowing of normal lumina. The degree of contracture of the bladder neck may vary widely, thus influencing the severity of obstruction and the character of the symptomatology.

The recognition of congenital contracture of the bladder neck must depend upon a high index of clinical suspicion in the presence of persistent bedwetting. Additional factors such as palpable distention of the bladder, hematuria, or urinary infection will strengthen such suspicion. The diagnosis is established by urologic investigation⁶. Cystourethroscopy, cystourethrography, cystometrography, and pyelography are required to establish the presence of congenital contracture of the bladder neck and its complications and sequelae. Proper urologic investigation demands general anesthesia in young children, and this in turn requires hospitalization for approximately 24 hours. Concurrent urine cultures and renal function indices are of course obtained.

The experienced endoscopist will usually, though not always, be able to diagnose contracture of the vesical neck. A palpable "snap" upon passing the panendoscope through the bladder neck is evidence of rigidity of the sphincter, and the visual findings of iris-like contracture, posterior lipping of the bladder neck, hypertrophy of the trigone, and trabeculation of the bladder wall are incontrovertible evidences of outlet obstruction. Advanced instances may also show bladder cellulites and diverticula.

The voiding cystourethrogram, which may be induced even under anesthesia, provides confirmatory evidence of obstruction with radiographic visualization of narrowing at the bladder neck and occasionally dilatation in the post-stenotic region of the urethra. Vesicoureteral reflux, universally pathologic, may also be noted and is generally conceded to be pathognomonic of ob-

structive uropathy⁷. Pyelography will define the condition of the upper urinary tracts. The finding of residual urine in the wakeful child is further evidence of obstruction with incomplete bladder emptying⁸.

Mechanism of Bedwetting

The exact physiologic mechanism of enuresis in the child with congenital bladder-neck contracture is not completely understood. There are a number of interrelated factors which may contribute to bedwetting under conditions of outlet obstruction.

1. *Incomplete emptying*: In the presence of contracture of the bladder neck, voiding may be incomplete and residual urine may be present either consistently or intermittently. Under such circumstances, it is easy to conceive of the child retiring with a partially filled bladder, which refills promptly and at the time when the child is most soundly asleep and unable to awaken readily to the impulses of a full bladder.

2. *Overflow*: In severe cases of bladder-outlet obstruction, the bladder may remain essentially full at all times, with the child voiding only in small increments. Usually these children also have diurnal dribbling and other symptoms of outlet obstruction. Overflow incontinence in such instances is a relatively constant dribbling rather than a forcible ejection from the bladder, due primarily to partial relaxation of the urinary sphincters during sleep.

3. *Infection*: The child with obstruction and residual urine is extremely susceptible to urinary infection, which will lead inevitably to hyperirritability of the bladder, inducing spontaneous contractions during sleep. Accompanying pyuria may also cause burning, frequency, and the other signs of urinary tract infection including chills and fever.

4. *Neuromuscular imbalance*: Extremely interesting speculation can be made about the possibilities of neuromuscular imbalance in the child with bladder outlet obstruction. Congenital contracture of the bladder neck involves a relative rigidity of the vesical neck or internal sphincter, so that the bladder neck does not open widely during the act of micturition. The result of

this increase in outlet resistance to voiding is a relative hypertrophy of the bladder musculature as evidenced by trabeculation of the bladder wall. A further indication of this muscular hypertrophy and accompanying neurogenic irritability is found at cystometrography. Such examination of the bladder function will often indicate a relative spasticity in the obstructed bladder. Surgical correction of outlet obstruction has been found to decrease this neuromuscular irritability.

No single one of these factors, nor even all of them in combination, can explain bedwetting in every child with congenital contracture of the bladder neck. Indeed, many children may exhibit no positive pathophysiologic findings to account for bedwetting. Certainly there are many bedwetters with contracted bladder necks who are not infected, exhibit no residual urine, do not have overflow, and show no evidence of neuromuscular hyperirritability of the bladder. There must, then, be other factors, quite possibly related to innate innervation of the bladder and vesical neck, to account for the bedwetting so prominent among children with contracture of the bladder neck. Since the act of voiding is a complex interrelationship of detrusor contraction and sphincter relaxation controlled by both reflex arcs as well as central inhibition, it may prove difficult to unravel the exact neurophysiologic basis for bedwetting.

Surgical Management

Once bedwetting has raised the suspicion of contracture of the bladder neck, the urologic measures outlined above may be employed to establish the diagnosis. The treatment and management of congenital vesical neck contracture in any save the mildest degrees is surgical⁹. Children who have minimal contracture and a negligible problem with bedwetting in the absence of any complicating factors (such as residual urine, ureteral reflux, or infection) may be managed conservatively. Dilatation of the urethra on one or a few occasions may improve the situation temporarily, and normal growth of the child, including the bladder neck itself, may resolve the situation.

In the more pronounced cases, surgical intervention is mandatory and curative. The tightly contracted vesical neck will not respond to progressive dilatation, since it is composed of fibroelastic tissue which will invariably contract again sooner or later. Repeated instrumental dilatation of the bladder neck hence should be condemned, since it is essentially worthless in the long-term management, and since it carries the inherent risk of introducing infection into an already impaired bladder.

Transurethral resection

Transurethral resection of the contracted vesical neck may be satisfactory in some instances. Many endoscopic surgeons feel that resection is most applicable in the male child because of the anatomic configuration of the bladder neck and contiguous prostate gland, while in the female, vigorous resection may be fraught with hazard because of the possibilities of vesicovaginal fistulae. Even in the male, transurethral resection should be undertaken with full awareness of the possibilities of failure. Resection results in a raw area denuded of mucosa which tends to heal by fibrosis, and fibrosis in the circumference of the vesical neck aperture may result in cicatrix and iatrogenic stricture formation, only compounding the obstruction at the bladder neck. Transurethral resection seems best reserved for those cases in which the obstruction is due primarily to a posterior lip, since in these instances resection need not be circumferential, but rather confined to the posterior aspect of the vesical neck alone.

Open surgical correction

The more acceptable surgical approach to the contracted bladder neck today appears to be open surgical correction. A majority of pediatric urologic surgeons now employ some variation of the YV-plasty. This procedure involves incision of the anterior wall of the bladder and urethra in the configuration of the Y, with the tail extending distally down the urethra and the apex lying exactly at the vesical neck. The incision is then closed by bringing the apex of

the Y down to the extreme distal limit of the incision, forming a V closure. This results in widening the bladder neck to the extent of the width of the tissue interposed at the vesical neck¹⁰.

The ring-like contractures may be dealt with advantageously through this same incision since visualization of the bladder neck is excellent. The mucosa of the neck is incised over the posterior lip and the underlying fibrous tissue is dissected sharply. After removal of the fibrous tissue, the mucosa is reapproximated, avoiding denudement of the surface in the region of the bladder neck.

Since many advanced cases of bladder neck contracture are accompanied by vesicoureteral reflux, surgical correction of this condition may be accomplished simultaneously with revision of the bladder neck¹¹. The YV incision affords good visibility and an opportunity for ureteral reimplantation in an effort to reconstitute valvular action to prevent further reflux. Vesicoureteral reflux and its surgical management presents considerations beyond the scope of this paper, but if such reimplantation is necessary, the tunneling procedures are considered to be the choice at present, and may be readily accomplished at the time of repair of the bladder neck¹².

Morbidity in connection with plastic reconstruction of the bladder outlet is slight. Hospitalization is usually for a period of a week or slightly longer, and the long-term results are extremely satisfactory. Micturition is improved, infection can be eliminated, and bedwetting is completely obviated in approximately 90 per cent of all cases submitted to surgical intervention. In the past three years, the author has operated upon or supervised the operations of 52 children with contracture of the bladder neck and associated bedwetting. The degree of contracture varied from minimal to severe with complications. Good results were obtained in 88 per cent or 46 of these children, based upon the criteria of elimination of residual urine, infection, and enuresis. Six other children showed varying degrees of response.

The following abbreviated case reports

serve to typify the clinical picture presented in congenital contracture of the vesical neck with associated bedwetting.

Case Reports

Case 1: A 6 year old girl suffered regular nightly enuresis. She had had one established urinary infection which responded slowly to antibiotics. Cystoscopy revealed a ring-like contracture of the vesical neck. Urethral dilatation on four occasions and double-voiding technique in conjunction with nocturnal restriction of fluids did not improve the symptoms. YV-plasty was accomplished, and within three months enuresis had been eliminated.

Case 2: A 21 year old male about to be married was concerned about periodic bedwetting which had occurred all his life. Cystoscopy disclosed a tight congenital contracture of the vesical neck with severe trabeculation of the bladder. Cystometrography disclosed hyperirritability. Transurethral resection resulted in complete relief of symptoms.

Case 3: A 7 year old girl was seen because of numerous episodes of urinary tract infection. She had suffered nightly bedwetting despite fluid restriction, alarms, and parental encouragement. A severe congenital contracture of the vesical neck was corrected by YV-plasty. In one year of follow-up, no further infections occurred and enuresis ceased.

Case 4: An 8 year old girl was admitted because of infection, bedwetting, and known vesicoureteral reflux. Studies confirmed contracture of the vesical neck with left ureteral reflux and a hyperirritable bladder. Exploration disclosed a rigid and tight contracture as well as a patulous left ureteral orifice, and YV-plasty with simultaneous left ureteral reimplantation by the Politano technique was accomplished. Though the patient still receives maintenance doses of sulfonamide, infection and bedwetting have ceased.

Case 5: A 28 year old housewife was referred because of lower abdominal pain and swelling, associated with intermittent bedwetting all her life. She had three episodes of probable cystitis. The vesical neck was tightly contracted. No reflux was demonstrated. The bladder was hyperirritable. YV-plasty and submucosal resection of the ring contracture were readily accomplished, and the patient is relieved of all symptoms.

Case 6: A 9 year old white male was seen because of persistent enuresis. Contracture of the vesical neck was corrected by transurethral resection. Bedwetting was not relieved until post-operative stenosis of the urethra was relieved by three successive urethral dilatations.

Summary

Persistent bedwetting in the child over 4 years of age is often a sign of obstructive

uropathy, the most common cause of which is congenital contracture of the vesical neck. The stenosis will vary in degree and in severity of complications.

The mechanism of bedwetting in bladder-neck contracture is probably related to the factors of incomplete emptying, overflow, infection, and neuromuscular imbalance. The diagnosis is established by complete urologic investigation.

Management in all except minimal instance is surgical, with open plastic revision of the bladder neck the procedure of choice. Case reports exemplify the clinical course and results of therapy. Results of surgical management of contracture of the vesical neck may be expected to be good.

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* * *

Scalenus Anticus Syndrome

Its Production By Deformity of the First and Second Ribs

JESSE P. CHAPMAN, JR., M.D.
ASHEVILLE

The symptoms produced by compression or irritation of the neurovascular bundle serving the upper extremity have been given many titles, depending upon the particular emphasis desired by the various investigators. The conditions described as "scalenus anticus syndrome," "thoracic outlet syndrome," "cervical rib," and "first dorsal rib syndrome" apparently have many features in common. The employment of the various, more exact refinements in terminology may be more accurate in specific instances, but tends to cloud the picture of numbness, tingling, and aching pain in the arm associated with pallor of the extremity and a diminished or absent radial pulse which the term "scalenus anticus syndrome" immediately calls to mind.

Among the many conditions which may produce this picture, one may include cervical rib, transverse process of the seventh

cervical vertebra, or costoclavicular compression. In the following case, the syndrome was produced by a congenital deformity of the first and second ribs.

Case Report

A 17 year old white male was first seen on July 1, 1958, with a history of aching pain and numbness in his left hand and arm for the preceding four years with a gradual progression of the symptoms. At the onset of these complaints, he had been seen by another physician; and because of some associated pain in the left side of the neck and syncopal attacks, an electroencephalogram was requested, and was reported as showing a normal tracing. Chest roentgenograms made at that time showed a deformity of the left first and second ribs. The fainting was controlled with mild sedatives, and he had had no syncopal symptoms for over 18 months prior to his first visit to me.

Physical examination disclosed a well developed but asthenic white adolescent boy. Examination of the chest showed an increased prominence of the left supraclavicular fossa and a visible pulsation in the lateral third of this space. The chest was asymmetrical, with the right hemithorax projecting forward somewhat more than the left. When the patient was supine or erect, the blood pressure in each arm was 138/70; but the radial pulsation disappeared completely in the left arm with the performance of Adson's test. The remainder of the physical examination elicited no other abnormal features.

On September 2, 1958, a left scalenotomy was performed under general anesthesia. Following the operation, the boy was relieved of all his symptoms, although there was still some diminution of the left radial pulse with Adson's test.

His symptoms began to recur in July, 1959, with numbness in his arm and mild syncopal attacks as before. At this time the blood pressure in his right arm was 136/70 and in the left arm 90/50. Femoral pulses were normal and bilaterally equal.

On October 2, 1959, the left first and second ribs were resected. The two ribs appeared to be fused together anteriorly to produce a single wide bone measuring 3 cm. at its greatest width and bifurcating as it passed laterally and posteriorly to form the first and second ribs. At the time of operation, the vessels to the upper arm could be seen distorted as they passed over the surface of this large flat bone.

The young man has done well following this second operation and had developed no further symptoms when he was dismissed on November 15, 1959.

Summary

A case is presented in which the symptoms characteristic of the scalenus anticus syndrome were produced by a congenital deformity of the first and second ribs. Temporary relief was obtained by scalenotomy, and the recurring symptoms were permanently relieved by resection of the deformed ribs.

Report from The Duke University Poison Control Center

JAY M. ARENA, M.D., *Director*

NICOTINE

Nicotine, the chief alkaloid of tobacco, is one of the most toxic and rapidly acting poisons. Tolerance fortunately develops with repeated administration in small doses, as with smokers and tobacco-chewers. Dangerous exposure may occur during the manufacture and use of nicotine-containing insecticides and when the alkaloid has been ingested in attempted suicide. Death has followed the lay use of tobacco infusions as enemas in the treatment for intestinal parasites in children.

Absorption of nicotine takes place in the alimentary and respiratory tracts as well as through the intact skin. The fatal dose varies widely: As little as 4 mg. may produce marked symptoms, while one patient ingested 2 Gm. and survived. About 40 mg. is generally fatal. Cigarette tobacco varies in its nicotine content, but common blends contain 15 to 20 mg. for each cigarette.

Nicotine is not readily absorbed in the stomach from ingested tobacco, as when children swallow cigarettes, and the initial stimulus to vomiting usually removes most of it before much harm is done by an otherwise serious dose.

The ingested alkaloid exerts a direct, rapid, caustic action causing a hot burning sensation in the mouth, throat, esophagus and stomach; but the systemic effects after absorption are of much greater significance. Nicotine initially and transiently stimulates all sympathetic and parasympathetic ganglion cells. This is rapidly followed by a more persistent depression and paralysis. The ganglion cells are first made more sensitive and then resistant to acetylcholine. A similar dual action is exerted on skeletal muscle (curariform effects) and on the central nervous system.

The effects of nicotine on the body are thus complex and unpredictable, and they

vary with dosage. Symptoms following a relatively small dose are transient and consist of salivation, nausea, perhaps vomiting, diarrhea, bradycardia, and dizziness. In severe acute poisoning with pure alkaloid, the patient may collapse and die within minutes from overwhelming paralysis. Where death is delayed, abdominal pain is marked, diarrhea severe, and a cold sweat prominent. Mental confusion, giddiness, restlessness, muscular weakness, and disturbed vision and hearing are followed by a loss of coordinating power, and partial or complete unconsciousness. Blood pressure may initially be raised and respiration stimulated, but a fall in blood pressure, a rapid, irregular pulse, and labored breathing follow shortly. Clonic convulsions are followed by collapse and complete muscle relaxation. Reflexes disappear; respiration becomes slow, weak, then ceases.

Since nicotine is completely eliminated in 16 hours, the patient may survive if he can be sustained over that period. Artificial respiration and oxygen are most urgent in severe poisoning, for death usually results from paralysis of the respiratory muscles. The use of a positive pressure resuscitator throughout the period of respiratory failure, may prevent death.

Immediate steps are taken to remove the poison. If it entered through the skin, garments are removed and the skin washed thoroughly with water and scrubbed with soap. For ingestion of nicotine, gastric lavage with potassium permanganate solution (1:5000 to 1:10,000) helps to remove and oxidize any nicotine left in the stomach. This should be followed by the administration of activated charcoal. Convulsions should be controlled with pentobarbital or, if necessary, with ether anesthesia.

* * *

MEANS TEST POPPYCOCK

Politicians and labor shed crocodile tears and oppose Kerr-Mills implementation because of its means test. This is pure poppycock. As every informed person knows the means test is now widely used by government and social agencies, and has been accepted by the public without visible resentment. We shall give a few examples where a means test is now used. It is used in Veterans Administration hospitals; in all the numerous welfare agencies whether municipal, state or federal; in all federal housing projects including the new Weybosset Hill project, designed especially for the aging; in classifying ward and service patients in every hospital in the state; and, of course, closest to home, in the application of service benefits in Physicians Service. The most recent application of the means test to reach the news columns has to do with the awarding of state scholarships for higher education.

It is a final irony that the King-Anderson Bill would be administered through Social Security, which, as everyone knows, determines eligibility for payment on the basis of—Yes!—*a means test*.—Editorial, Virginia Medical Monthly, March, 1962.

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SEPTEMBER, 1962

SOME HANDFUL

Even President Kennedy's friends must recognize that he is a poor loser. Shortly after the defeat of his cherished medical care plan, he told a televised press conference: "Nearly all Republicans and a handful of Democrats joined with them to give us today's setback." He also proclaimed that medical care for the old under social security would be a top political issue in the 1962 election, and that the people must decide "whether we want to support this kind of legislation for the benefit of the people."

The inference seems plain that Mr. Kennedy is calling for the defeat of the Democrats who voted against his pet measure. Apparently he overlooked the proverbial fate of a divided house.

Commentators were quick to point out that the "handful of Democrats" was one third of the Democrats in the Senate and included 10 major committee members and

many of the oldest and most influential Senators.

In his anger the President made a savage attack on the medical profession, attributing basely selfish motives to the doctors who oppose Medicare under social security. Apparently he has ignored the "pretty ghastly, awful picture" of medical practice in Great Britain after 14 years of the National Health Service—and the more recent unsuccessful attempt of the Saskatchewan government to force a government-controlled medical practice plan on that Canadian province.

David Lawrence, in his column for July 21, says that Kennedy has made a great mistake by making Medicare a partisan political issue, and by antagonizing most of the members of the medical profession. "The doctors fear fixed fees, and socialized medicine. They know what has happened abroad through creeping socialization which started as the President's program does."

The older citizens of this country need not suffer for medical care under the provisions of the Kerr-Mills Act, whatever their financial status.

While the great majority of doctors are happy over the result of the recent vote on Medicare, they should not cease their efforts to convince their friends and patients that our cause is just. With Drs. John Kernodle as president and John Rhodes as president-elect of our State Society, and with Dr. George Fister as president and Edward Annis as president-elect of the American Medical Association, we will have good leadership in the trying years ahead.

And we have friends in Senators Ervin and Jordan, and our representatives in the House. Let us continue to write these men from time to time and let them know how we feel about various measures that come up for consideration.

* * *

OUR SPACE PROGRAM

The July 20 issue of *Science*, the weekly publication of the American Association for the Advancement of Science, raises some pertinent questions about this nation's space program. Thus far Congress has given the National Aeronautics and Space Admini-

stration all it has asked for, but the *Science* reporter says that "House space committees are increasingly asked by their colleagues for assurance that the money requests are receiving careful committee scrutiny." Since the NASA expects to ask for \$5 billion next year and probably double that amount within three or four years, this concern over taxpayers' money seems justified.

To forestall criticism, the Administration is making an all-out effort to convince the public that the space program will bring great benefits, aside from the cold war aspects. The *Science* story cites a booklet published by the Science and Aeronautics Committee, "NASA's guardian angel in the House," which concludes that "space exploration will ultimately play an important role" in "at least five major categories," to wit: "(i) Bursting population. (ii) Acute water shortage. (iii) Soil erosion and disappearance. (iv) Too much leisure. (v) Intensified nationalism . . . a strengthened national economy, new jobs and job categories, better living, fresh consumer goods, improved education, increased health, stimulated business enterprise and a host of long-range values which may ultimately make the immediate benefits pale into relative insignificance."

It is true that when the Wright brothers first began to fly very few people were farsighted enough to visualize the ultimate results of their efforts. No doubt space exploration will be continued and results as yet unforeseen will be obtained. It is hard to believe, however, that space exploration will help solve the "bursting population" problem. The inference is that the moon and Mars and possibly other planets will be used for living room by our excess population. In spite of the trials and tribulations of this earth, however, it is highly unlikely that many will care to leave this imperfect world to live on the moon or Mars, even if they should prove to be habitable.

While some may expect all the dreams of the NASA to be realized, others will share the hope of Iowa's Congressman H. R. Gross that "If and when we do get to the moon we will find a gold mine up there because we will certainly need it."

JOHN GLENN A CONVERSATION PIECE?

In the *Shelby Star* for July 25 the editor spoke for many Americans when he deplored John Glenn's being used as a conversation piece for the Kennedy family.

It seems a shame that a United States hero of John Glenn's stature should be picked up in a high-level social whirl that could seriously hamper his future space contributions and might tarnish the crown he picked up as the first American to orbit the earth.

In recent weeks he's just as successfully eaten a meal with Mrs. Robert F. Kennedy while balanced on a swimming pool diving board and skimmed over the water at Hyanis Port with the First Lady while the President watched.

John Glenn sprang to hero status because National Aeronautics and Space Administration officials considered him the best man for the nation's first attempt at orbital flight. But he performed well and added to his achievement with simple, honest, sincere statements and observations that endeared him to a nation of hero worshipers.

America needed a hero and John Glenn was perfect for the job.

There still are many jobs which Colonel Glenn can perform—and perform well, we're sure—for NASA and his country.

We sincerely hope that he will not be unwisely relegated to the position of a mere conversation piece for the Kennedy clan.

Doubtless many citizens, regardless of social status or political belief, will say a hearty Amen!

* * *

DR. HAMILTON W. STEVENS HONORED

Belated congratulations to Dr. Hamilton W. Stevens, District Health Director, Asheville, who was elected president of the Southern Branch of the American Public Health Association at its thirtieth annual meeting in Roanoke, May 2-4. Congratulations also to the Southern Branch of the APHA for its good judgment in selecting Dr. Stevens for its leader during the coming year.

President's Message

THE QUALITY OF MEDICAL CARE IN NORTH CAROLINA VS. RUSSIAN MEDICINE

One is always happy and appreciative to receive a congratulatory pat on the back for achievements and for quality of work performed. With this in mind, I am in a position to give a big "wallop" to the medical profession of our state. This is deserved in part by the faculties of our three medical schools, but also, by every member of our profession. Why should I be in such a mood?

Recently, while in attendance at the International Cancer Congress in Russia, I had ample opportunity to compare physicians of North Carolina and the medical care which they provide with medical care in other parts of the world and more especially with that in Russia and other countries behind the Iron Curtain.

In Russia all property is owned by the government. In most instances, the providers of service are paid for by the state and the service is given free to the citizens. The exception to this rule is in the legal profession and among authors and artists whose services are not, as yet, included under government control. Now this makes a very simple program for the medical care of the people. After talking with many persons from all walks of life, the majority were pleased with this program. Yet, in spite of their being satisfied, their program is most inferior when compared with ours.

A geographical area is divided into districts and a doctor is assigned to care for the people in a district. If one is dissatisfied with the district doctor, he can then apply for care by another doctor elsewhere, but he must pay for this care. This actually permits some freedom of choice of physicians if funds are available to pay for the service of an outside physician.

In general, the facilities were old and the equipment obsolete. Modern medicines, including antibiotics, are available but in limited supply because of expense. There were some outstanding physicians in teaching and research but few in actual practice. Both medical teaching and service are

lagging about twenty-five years behind the medical care in the U.S.A.

There is the experienced surgeon, such as Demhikov, who has successfully transplanted a heart from one dog to another and soon anticipates similar success in the human. Such quality physicians stand above the others, similarly to the seven thirty-story buildings in Moscow, which stand out against the skyline above the remainder of the city.

On visitation to the hospitals, one finds many physicians, mostly female, who in many respects meet the qualifications of medical assistants or aides in our country. The directors and professors in the institutes are of a higher quality, but most of the work is not performed by them. Certainly, the operating room technic and sterility factors are of much lower and different standards from ours. Street clothes are permissible at the operating table with gown and ill fitting rubber gloves. The instruments are of adequate quality, but one saw only a few of each variety. An operating hall may have 3-5 tables with procedures being performed on all simultaneously.

Walking among the crowd in the streets, one notices most people are well fed, but many have varicosities and goiters which need surgical attention. Also, the majority of the people, young and old, have prominent dental cavities. These are obvious limitations in the present system of medical care. I tried to visit modern obstetrical hospitals, but I was always told they were in the suburbs and not available. From the limited number of beds and equipment at the Institute of Obstetrics and Gynecology, one would think that most deliveries occur in the home.

Thus, I say medical care in our country, and especially our state, is of a much higher quality than that in the Soviet Union. This is a first hand illustration of why we as physicians want to help the needy people and continue to strive to preserve the free-

dom of private practice in the medical profession in our country.

Editorial Comment:

These expressed observations of the Russian system of medical care are shared by the other three North Carolina physicians who attended the International Cancer Congress, namely, Drs. Rachel D. Davis of Kinston, William W. Shingleton and H. Max Schiebel of Duke Hospital, Durham. These physicians, I am sure, will be happy to speak to county medical society groups or other interested organizations giving their comparisons and evaluations of the two medical care systems.

JOHN ROBERT KERNODLE, M.D.

Bulletin Board

COMING MEETINGS

U.N.C. Postgraduate programs: Asheville, October 2—November 13 (every Tuesday for six weeks); Morganton, October 3—November 11 (every Wednesday for six weeks).

American College of Obstetricians and Gynecologists, District IV—Barringer Hotel, Charlotte, October 4-6.

Mecklenburg Academy of General Practice Symposium—Charlotte, October 10-11.

Forsyth County Heart Association Annual Symposium—Hotel Robert E. Lee, Winston-Salem, October 12.

Raleigh Academy of Medicine Symposium on Collagen Diseases—Raleigh, October 19.

Postgraduate program: "Marriage Counselling in Medical Practice"—U.N.C. School of Medicine, Chapel Hill, October 19-20.

North Carolina Academy of General Practice Meeting—Jack Tar Durham Hotel, Durham, October 31-November 2.

North Carolina Pediatrics Society, Annual Meeting—Sedgefield Inn, Greensboro, November 9-10.

Symposium on Neurological Diseases—U.N.C. School of Medicine, Chapel Hill, November 29-30.

North Carolina Mental Health Association, Annual Meeting—Sir Walter Hotel, Raleigh, February 15-16.

Medical College of Virginia, Postgraduate Course in Internal Medicine—Richmond, October 1-5.

American Public Health Association, Annual Meeting—Hotel Fontainebleau, Miami Beach, October 15-19.

American College of Gastroenterology, Annual Convention—Morrison Hotel, Chicago, October 29-31.

Southern Medical Association Meeting—Hotel Fontainebleau, Miami Beach, November 12-15.

American Hearing Society, Annual Conference—Statler Hilton Hotel, New York, November 15-17.

American College of Chest Physicians, Interim Session—Los Angeles, November 24-15.

NEW MEMBERS OF THE STATE SOCIETY

The following physicians joined the Medical Society of the State of North Carolina during the month of July.

Drs. Theodore Vincent Hairfield, 351 South Mulberry Street, Lenoir; Dan Earnhardt Johnson, 354 South Mulberry Street, Lenoir; Doris B. Braxton, 1340 Vaughan Road, Burlington; Paul Forrester Williams, 328 West Davis Street, Burlington; Alexander Fairley Goley, 1625 Woodland Avenue, Burlington; Henry Neill Lee, Jr., 102 West 26 Street, Lumberton; Robert Griffin Brame, 301 Miller Street, Winston-Salem;

Also Drs. Theodore Joseph Kocak, 113 Seneca Place, Charlotte; George Leon Pittman, Kernodle Clinic, Burlington; Clay Hughes Napper, 301 Miller Street, Winston-Salem; Philip Rogers Mann, 29-B Fenwick Drive, Charleston; Helen M. Deane, Woman's College, Greensboro; John Clay James, Maiden Clinic, Maiden; Joseph William Cavallaro, 510 West 8 Street, Newton; William Blair Bryan, 4200 Park Road, Charlotte; Marvin Mather McCall, III, 1900 Brunswick Avenue, Charlotte.

NEWS NOTES FROM THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE

A new department of Hospital Administration is being created at the University of North Carolina School of Medicine.

Dr. Robert R. Cadmus, now director of North Carolina Memorial Hospital and professor of hospital administration, will become chairman of the newly established Department of Hospital Administration. In addition to his new duties, he will assume the position of consulting director of the hospital.

Eugene B. Crawford, Jr., currently associate director, will succeed Dr. Cadmus as director.

* * *

Dr. Henry T. Clark, Jr., administrator of the Division of Health Affairs, was in Fairbanks, Alaska, recently to study a request for federal funds by the University of Alaska.

Dr. Clark was representing the National Institutes of Health (NIH) of the U. S. Public Health Service. He is a member of the NIH General Clinical Research Committee, but in this case was serving as a consultant of the Special Programs Review Branch of the Division of Research Grants of the NIH.

A five-year grant of \$52,900 has been made by the National Cancer Institute to Dr. Walter R. Benson of the Department of Pathology for the study of cancer. The scientific name of the research project is "Effect of Ethionine on Tumor Induction."

One phase of Dr. Benson's work in this field was reported last month in the A.M.A. **Archives of Pathology**. This article, published under the title, "Intraocular Tumor After Ethionine and N-2 Fluorenylacetamide," reported how eye cancer was produced in laboratory animals for the first time by feeding them a carcinogenic substance.

* * *

Dr. Kenneth M. Brinkhous, head of the UNC School of Medicine's Department of Pathology, was guest speaker at the second North American Conference of Medical Laboratory Technologists at Bethesda, Maryland, in June. He spoke on "Bleeding Disorders: The Laboratory in Diagnosis and Control Therapy."

* * *

Dr. Richard Walker, instructor in the Department of Medicine, has been granted a Leukemia Scholar Award by the Leukemia Society of New York City.

A five-year grant in the amount of \$75,000 has been made to the School of Medicine for support of research being conducted by Dr. Walker in the field of leukemia and related diseases.

* * *

University of North Carolina Chancellor William B. Aycock has announced the following faculty promotions at the School of Medicine:

From associate professor to professor: Drs. Charles A. Bream, Ernest Craige, Richard M. Peters and Judson J. Van Wyck.

From assistant professor to associate professor: Drs. Ralph L. Dunlap, John B. Hill, Eszter Kokas, Earle E. Peacock Jr., Ralph Penniall and William J. Waddell.

From instructor to assistant professor: Drs. William B. Blythe, David J. Holbrooks Jr., William E. Lassiter, Rodney L. McKnight, Reed P. Rice Jr., Oscar L. Sapp III and Rex W. Speers.

* * *

Dr. James R. White has been named assistant professor in the Department of Biochemistry of the School of Medicine. He is a native of Fort Benning, Georgia and was educated at Stanford University, receiving his Ph.D. degree in 1948. Prior to accepting his present position, he was a member of the faculty of the University of Florida.

* * *

Dr. Sydenham B. Alexander, assistant administrator of the University of North Carolina Division of Health Affairs, has been granted a one-year leave of absence effective September 1 to

accept an appointment with the federal government.

Dr. Alexander will be a visiting scientist in the Visiting Program of the National Institutes of Health of the U. S. Public Health Service. He will be stationed in Washington, D. C.

* * *

Dr. George R. Holcomb has been appointed associate dean of the Graduate School for research administration, it was announced recently by Alexander Heard, dean of the Graduate School.

Dr. Holcomb succeeds Dr. William F. Little, who has held the position for the past two and one half years. Dr. Little, an associate professor of chemistry, will return to full time teaching and research in the Chemistry Department.

A member of the faculty since 1957, Dr. Holcomb completed educational training at the University of Wisconsin, where he received a Ph.D. in anthropology.

* * *

Dr. Nathan A. Womack, Professor of Surgery and Head of the Department, U.N.C. School of Medicine, will be a featured speaker at the 5th annual Medical Progress Assembly, to be held in Birmingham, Alabama, September 30-October 2. The subject of his talk will be **Gastric Bleeding**.

NEWS NOTES FROM THE DUKE UNIVERSITY MEDICAL CENTER

A major program of renovation for Duke Hospital's older operating rooms was scheduled to begin in Mid-August, at an estimated cost of \$317,231.

Louis E. Swanson, assistant superintendent of Duke Hospital and chairman of the Medical Center's Building Committee, said that the renovation will make facilities in one of the older suites equal to those of a new 10-room operating suite which was completed in 1957.

Changes will include new wiring and installation of explosion-proof electrical outlets and non-conductive floors; removal of observation areas to provide increased service and equipment of air conditioning equipment.

* * *

Dr. Wayne Rundles, professor of medicine at the Duke University Medical Center, was one of a half dozen Americans who were invited to attend a Ciba Foundation Symposium at Leyden, Holland, last June.

Dr. Rundles, presented a paper on "Action of Anabolic Steroids and Red Cell Production."

He returned by way of London, where he visited the Chester Beatty Institute, which is connected with the Royal Cancer Hospital in London. He also plans to visit Chambridge, England.

NEWS NOTES FROM THE BOWMAN GRAY SCHOOL OF MEDICINE WAKE FOREST COLLEGE

The Bowman Gray School of Medicine has received a \$176,054 research building grant from the National Institutes of Health for the construction of a three-story extension to the school's vivarium.

Estimated cost of the new facility has been set at \$354,074. Construction is scheduled to start in early September. The medical school's share of the building costs has been provided for through special gifts.

Dr. Thomas B. Clarkson Jr., associate professor of experimental medicine, is director of the vivarium.

* * *

Dr. Robert P. Morehead, professor of pathology, attended the IV Congress, International Academy of Pathology, July 8-13, in Zurich, Switzerland. He presented a paper on "Intermediate Epithelial Tumors of the Skin" at the July 9 session.

* * *

Dr. Frank C. Greiss Jr., instructor in obstetrics and gynecology, participated in the Southern Obstetric and Gynecologic Seminar, July 23-28, in Asheville. He presented papers on "Habitual Abortion" and "Hepatitis and Pregnancy."

* * *

Dr. Herman E. Schmid Jr., assistant professor of physiology and pharmacology, presented a paper on "Renin, Antirenin and Renal Hemodynamics" at the Georgia Hypertension Seminar, July 18-20, in Atlanta.

* * *

Dr. Hugh B. Lofland Jr., associate professor of biochemistry, has begun a three-year study of the relationship between the occurrence of atherosclerosis and the intake of various dietary fats and proteins. The study is being sponsored by the Special Dairy Industry Board which awarded Dr. Lofland a \$21,372 research grant.

RALEIGH ACADEMY OF MEDICINE

The Raleigh Academy of Medicine will offer a symposium on "Collagen Diseases and Their Variants" on Friday, October 19. Participants will be Drs. Ray W. Gifford, John R. Hasserick, Leonard L. Lovshin, and Arthur L. of the Cleveland Clinic Foundation.

Details will be made known at a later date.

NORTH CAROLINA HEART ASSOCIATION

A new booklet to assist physicians in prescribing fat-controlled diets for patients as a means of lowering blood cholesterol levels is now available from the North Carolina Heart Association.

Entitled "Planning Fat-Controlled Meals for 1200 and 1800 Calories," the 24-page booklet is written in nontechnical language as a guide for

overweight patients on prescribed fat-controlled diets. A second booklet, due for early publication, will be similar to the first except that calories will not be restricted. Both booklets will be available to patients on a physician's prescription only.

The diet plans offered differ from the "average" American diet in two ways: (1) They are moderate in fat, providing about 35 per cent of the day's calories from fats instead of the usual 40 to 45 per cent; and (2) more of the fat comes from vegetable oils and less from meat and dairy products, raising the ratio or polyunsaturated to saturated fatty acids above customary levels.

The two booklets were prepared jointly by the Nutrition Committee of the American Heart Association, the American Dietetic Association, and the Heart Disease Control Program of the U. S. Public Health Service.

For their own use and that of their patients, physicians may request copies of the first fat-controlled diet booklet now and the second, when it becomes available, from the North Carolina Heart Association, Miller Hall, Chapel Hill, North Carolina.

EDGECOMBE-NASH MEDICAL SOCIETY

The Edgecombe-Nash Medical Society held its regular monthly meeting in Rocky Mount on August 8. Dr. James Maher, pathologist of Goldsboro, spoke on "Classical Disease States Imitated by Therapy."

NEWS NOTES

Dr. James G. Jones has announced the opening of his office for the general practice of medicine at 615 College Street in Jacksonville, North Carolina.

AMERICAN COLLEGE OF PHYSICIANS

A postgraduate course dealing with the major complexities and advances in internal medicine will be presented October 1-5 by the American College of Physicians at the Medical College of Virginia in Richmond.

The course, "entitled Basic Mechanisms in Internal Medicine," will deal with new and significant advances in internal medicine, with emphasis on the patho-physiologic concept as related to clinical manifestations and the therapy of disease. It will be directed by Dr. W. T. Thompson, Jr., professor and chairman of the Department of Medicine, Medical College of Virginia, and co-directed by Drs. Charles M. Caravati, professor of clinical medicine, and Kinloch Nelson, professor of medicine and director of continuation education, both of the Medical College of Virginia.

Registrations forms and requests for information should be directed to Edward C. Rosenow,

Executive Director, American College of Physicians, 4200 Pine Street, Philadelphia, Pennsylvania.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next scheduled Part I (written) examination of the American Board of Obstetrics and Gynecology will be held at various examining centers in the United States and Canada; also military centers outside the continental United States, on Friday, December 4, 1962.

Current Bulletins may be obtained by writing to: Robert L. Faulkner, M.D., Executive Secretary and Treasurer, 2105 Adelbert Road, Cleveland 6, Ohio.

Diplomates of this Board are urged to notify the office of the Executive Secretary and Treasurer of a change in address.

AMERICAN ACADEMY OF GENERAL PRACTICE

Twenty-seven men, all vitally interested in a specialized communications problem, met in Aspen, Colorado, recently for a three-day seminar on "Recent Advances in Medical Communication."

The seminar was sponsored by the American Academy of General Practice and the Institute for Advancement of Medical Communication in cooperation with the Aspen Institute for Humanistic Studies.

Included in the group of prominent physicians, top media experts, and representatives of private and governmental agencies was Dr. Amos N. Johnson of Garland, North Carolina.

HOMER W. SMITH FELLOWSHIP IN RENAL PHYSIOLOGY

The New York Heart Association has announced the establishment of a Homer W. Smith Research Fellowship in Renal Physiology.

The fellowship, tenable at any institution in the United States, will provide a total of \$60,000 for an established investigator over a period of five years, beginning July 1, 1963. The stipend will be \$10,000 the first year, with an annual increments of \$1,000.

Nomination for the fellowship should be in the form of a letter from the chairman or director of the sponsoring department or institution, accompanied by biographical data on the proposed fellow, a bibliography of his research, and a brief discussion of his scientific interests and achievements that would qualify him for the award.

Nominations must be received before November 1. They will be reviewed by the Advisory Council on Research of the New York Heart Association in December, and its decision will be announced shortly thereafter.

AMERICAN COLLEGE OF CHEST PHYSICIANS

The American College of Chest Physicians will hold its annual Interim Session at the Ambassador Hotel in Los Angeles, November 24-25, 1962. This is just prior to the American Medical Association Clinical Meeting there.

A program may be obtained by writing Mr. Murray Kornfeld, Executive Director of the College, at 112 East Chestnut Street, Chicago 11, Illinois.

AMERICAN THORACIC SOCIETY

The American Thoracic Society, medical section of the National Tuberculosis Association, offers grants for research in respiratory diseases, including tuberculosis. Grants are awarded for medical and social research in these fields.

Deadline for applications for the grant year beginning July 1, 1963 is **December 15, 1962**. Full information and forms may be obtained from the Division of Research and Statistics, American Thoracic Society, 1790 Broadway, New York 19, New York.

NEW YORK ACADEMY OF SCIENCES

A Conference on "Fetal and Infant Liver Function and Structure" will be held at the Henry Hudson Hotel, New York City, November 7-10, under the auspices of the New York Academy of Sciences.

Invitations may be obtained from Mrs. E. T. Minor, Executive Secretary of the New York Academy of Sciences, 2 East Sixty-third Street, New York 21, New York.

PHARMACEUTICAL MANUFACTURERS ASSOCIATION

Dr. Lowell T. Coggeshall, a leading U. S. medical scientist and educator, and vice president of the University of Chicago, has been named chairman of the prescription drug industry's Commission on Drug Safety.

The commission was established July 28 by the Pharmaceutical Manufacturers Association in an attempt to broaden scientific knowledge regarding predictability of action in humans of the potent drugs likely to emerge in the future.

In accepting his appointment Dr. Coggeshall said: "The basic purpose of our commission is to study the broad and complex problems of making available to the public, with adequate safeguards for both the doctor and the patient, the therapeutic advances which will result from the enormous programs and rapid pace of medical research."

* * *

Detailed information on 544 new single chemical entities, introduced in the past two decades and on the United States market today, is contained in **Review of Drugs, 1941-1961**. The 50-page

compendium, the first of its kind anywhere, has been released by the Pharmaceutical Manufacturers Association of Washington, D. C.

The 544 drugs are listed in 35 therapeutic classifications, and more than 70 American firms are specifically identified as originators of more than 60 per cent of the drugs. U. S. firms additionally developed and marketed about 95 per cent of the total.

In addition to the introducer's trademark and generic name, the **Review of Drugs** names the originator and date of origin where known, the developer and date marketed, and the patent number or information on patent status where available.

JOINT BLOOD COUNCIL

Dr. Gunnar Gundersen of LaCrosse, Wisconsin, was re-elected president of the Joint Blood Council at its annual meeting in Chicago on June 29, 1962.

Three new members were added to the Scientific Committee. Among them was Dr. Ivan W. Brown of Durham, North Carolina.

AMERICAN RHINOLOGIC SOCIETY

The American Rhinologic Society will hold its eighth annual meeting in the Statler Hilton Hotel, Los Angeles, November 1-2.

At the annual dinner on the evening of November 1, the guest speaker will be Dr. Franz Alexander, clinical professor of psychiatry, University of Southern California Medical School, whose subject will be "Psychosomatic Aspects of Medicine."

Dr. Raymond L. Hilsinger of Cincinnati, president-elect, will be installed as president, along with the other newly elected officers. Members of the medical profession are cordially invited; there is no registration fee.

For further information write Dr. Robert M. Hansen, Secretary, American Rhinologic Society, 2210 Lloyd Center, Portland 12, Oregon.

NATIONAL SOCIETY FOR CRIPPLED CHILDREN AND ADULTS

This country's outstanding expert in the treatment of children with congenital abnormalities or deformities of limbs has gone to Germany to help in solving the critical problem created by the recent births of 3,500 to 5,000 children as a result of the drug thalidomide.

A travel grant was made by the Easter Seal Research Foundation to Charles H. Frantz, M.D., orthopedic consultant to the Area Child Amputee Center of the Michigan Crippled Children Commission, Grand Rapids, it was announced by Dean W. Roberts, M.D., executive director of the

FOR THE LONG HAUL

IN ORAL THERAPY OF DIABETES

DBI-TD

CAPSULES 50 mg.



National Society for Crippled Children and Adults.

Dr. Frantz went to Germany in August for a month to investigate both the deformities caused by thalidomide and the methods being devised by German scientists in fitting these infants with prosthetic devices.

The grant to Dr. Frantz is one more of nearly 100 studies sponsored by the Easter Seal Research Foundation at universities, medical schools, and hospitals throughout the United States seeking the causes, means of alleviation, and ways of preventing crippling.

SOCIETY OF NUCLEAR MEDICINE

The Society of Nuclear Medicine recently concluded its ninth annual meeting in Dallas, Texas, with the election of the following officers: Dr. J. R. Maxfield, Jr., Dallas, president; Dr. Thad Sears, Denver, president-elect; Dr. Joseph Sternberger, Montreal, Canada, vice president; C. C. Harris, M.S., Oak Ridge, Tennessee, secretary; and Dr. William H. Beierwaltes, Ann Arbor, Michigan, treasurer.

The tenth annual meeting of the Society will be held at the Queen Elizabeth Hotel, Montreal, Canada, June 26-29, 1963.

For further information, address all inquiries

to Samuel N. Turiel, Executive Administrator, Society of Nuclear Medicine, 333 North Michigan Avenue, Chicago 1, Illinois.

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

Plans for the establishment of an expert committee to study the impact of smoking upon health were made in July, when Surgeon General Luther L. Terry of the Public Health Service met with representatives of several federal agencies, nongovernmental professional groups, health organizations, and the tobacco industry.

Represented at the meeting were the American Cancer Society, the American College of Chest Surgeons, American Heart Association, American Medical Association, The Tobacco Institute, Inc., Food and Drug Administration, National Tuberculosis Association, Federal Trade Commission, and the Office of Science and Technology of the Office of the President.

According to Dr. Terry, the study will be concerned not only with tobacco but all other factors which may be involved such as air pollution, automobile exhausts, etc. It is expected to get underway by mid-September, with the first phase completed in approximately six months. No time gauge can be placed as yet on the second phase.

DBI-TD

brand of sustained action phenformin HCl

first and only
timed-disintegration
oral hypoglycemic
dosage form

long term response . . . "Secondary failure is unlikely to occur" with phenformin⁴ (DBI-TD capsules, DBI tablets). Phenformin has been successfully administered daily in diabetics in one study for over 3 years² and in another for up to 4½ years¹ with "a virtual absence of acquired resistance or true secondary failure."¹ Indeed, DBI has produced a satisfactory response in 55 to 60% of tolbutamide secondary failures.^{3,7}

long term clinical safety . . . No liver or parenchymal organ toxicity has been observed after up to 2½ years of daily use of DBI-TD — nearly 5 years with the DBI tablets.^{1,2,9} "The absence of hypoglycemic reactions" with phenformin "has been conspicuous."⁵

long term tolerance . . . DBI-TD is well tolerated with minimal g.i. side effects.^{2,6,8} Radding et al.⁶ report, "the relative freedom from gastrointestinal side effects was particularly reassuring . . . and in no instance was it necessary to discontinue the drug."

long term convenience . . . Once a day dosage — or at most twice a day — for great majority of diabetics makes DBI-TD simple and convenient therapy. Each dose lowers blood sugar gradually, smoothly, for about 12 to 14 hours.⁶

DBI-TD (brand of Phenformin HCl — N¹-β-phenethylbiguanide HCl) available as 50 mg. timed-disintegration capsules; bottles of 100 and 1000 capsules. Also available as DBI tablets, 25 mg., bottles of 100 and 1000.

Important: Before prescribing DBI-TD, the physician should be thoroughly familiar with directions for use, including indications, dosage, possible side effects, precautions and contraindications. Write for complete literature.

1. Pomeranze, J.: Clinical Med. 8:1155, June 1961. 2. Krall, L. P. and Bradley, R. F.: Geriatrics 17:337, May 1962. 3. DeLawter, D. E. et al.: J.A.M.A. 171:1786, Nov. 28, 1959. 4. Perkin, F. S.: J.A.M.A. 173:36, May 7, 1960. 5. Pearlman, W.: Phenformin Symposium, Houston, Feb. 1959. 6. Radding, R. S. et al.: Metabolism 11:404, April 1962. 7. Gold, A. et al.: Applied Therapeutics 2:137, 1960. 8. Brown, G. D. and Gabert, H.: Applied Therapeutics 4:451, May 1962. 9. Gold, A.: Applied Therapeutics 4:466, May 1962.

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U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

A new review of Russian studies and theories concerning the problem of atherosclerosis is being issued today by the Public Health Service.

Titled **Atherosclerosis—Occurrence, Clinical Forms, Therapy**, the publication is a translation from the Russian original, published in 1960. It was written by Prof. A. L. Miasnikov, active member of the Academy of Sciences, U.S.S.R., and director of the Institute of Therapy, Academy of Medical Science, U.S.S.R.

The publication is being made available to those engaged in cardiovascular research in this country.

* * *

A nation-wide seizure campaign to stop the use of a fake diagnostic machine found in offices of hundreds of health practitioners was announced recently by the Food and Drug Administration.

The announcement follows a refusal by the United States Supreme Court June 11 to review actions of lower courts banning the device from interstate shipment.

The machine, known as the Micro-Dynameter, is supposed to be effective for detecting scores of serious diseases by measuring electric currents generated by metal plates applied to areas of the body. FDA scientists proved that the only condition measured by the device is the amount of perspiration on the skin of the patient.

* * *

The 1962 Public Health Service Film Catalog of medical-health related motion pictures and filmstrips has recently been published by the National Medical Audiovisual Facility.

The Audiovisual Facility, a part of the Public Health Service's Communicable Disease Center in Atlanta, announced that single copies of the 78 page catalogue of educational films are available to persons and institutions with teaching functions in the health sciences.

The nearly 350 catalogued films are available without charge upon two weeks' notice. Requests should be directed to the Communicable Disease Center, Atlanta 22, Georgia, Attention, National Medical Audiovisual Facility. The borrower pays only return postage and minimum insurance.

VETERANS ADMINISTRATION

Young psychiatrists and psychiatric residents interested in a year of research training to qualify them in techniques of laboratory and clinical psychiatric research are invited to apply for the Veterans Administration's new program for research associates in psychiatry.

The year of training as a research associate is aimed at qualifying more psychiatrists as VA clinical investigators. The clinical investigator

appointment for psychiatrists who have demonstrated they have ability to do productive and creative research.

Further information is available from the Chief, Psychiatric Research (151H), Department of Medicine and Surgery, Veterans Administration Central Office, Washington 25, D. C.

Macmillan Named Exclusive Distributor
for Pergamon Books

An agreement was announced recently under which the Macmillan Company, one of the nation's leading general publishers, will become the exclusive distributor throughout the Western Hemisphere of all scientific, technical and reference books and textbooks published by Pergamon Press, Ltd., Oxford, England, and its American affiliate, Pergamon Press, Inc., New York. The agreement is effective immediately.

The Pergamon list includes books on virtually all of the physical, biological and medical sciences and many of the social and behavioral sciences. The company has pioneered in making available to the English-speaking world books and journals reporting results of research and development in the U.S.S.R.

Not involved in the agreement are the 94 international scientific research journals published by Pergamon. These journals will continue to be published, advertised and sold in the United States by Pergamon Press, Inc., New York. The Pergamon sales and editorial offices at 122 E. 55th Street, the company said, will continue to serve authors, editors, subscribers, and advertisers.

In June, Pergamon Press, Ltd. announced appointment of The Macmillan Company as exclusive distributor in the United States and Canada of the **American and International Library of Science, Technology, Engineering and Library Studies**, a new 1,00 volume series of soft-cover textbooks in the scientific and liberal arts fields. The first 25 titles of this Library will be issued this fall.

Major Antibiotics Price-Drop Announced
By Lederle Labs

The sixth major price reduction for Lederle's broad spectrum antibiotics since the introduction of this important class of drugs in 1948 was announced recently by Dr. Robert P. Parker, General Manager, Lederle Laboratories, Division of American Cyanamid Company.

"This latest decrease of about 15 per cent brings the current price down to less than one-fourth the original price level for this important class of drugs," the pharmaceutical company executive stated. The antibiotics affected by the price reduction are the principal forms of Decolmycin demethylchlortetracycline, Achromycin tetracycline and Aureomycin chlortetracycline.

The Month in Washington

Reports of possible serious side effects of three drugs led to studies and investigations by the drug industry, the American Medical Association and the federal government.

Most attention was given to thalidomide, a nonbarbiturate which produces sleep without a "hangover." Births of malformed babies, mostly in foreign countries, by mothers who took the drug during pregnancy were widely reported.

The Pharmaceutical Manufacturers Association established a special drug safety group to broaden scientific knowledge regarding predictability of the effect of potent drugs on humans.

The A.M.A. started a special study of thalidomide. A Senate subcommittee opened an investigation. One of the first official acts of the new secretary of Health, Education and Welfare, Anthony J. Celebrezze, was to order a tightening of FDA controls over drug testing.

The parent company of Wm. S. Merrell Co. of Cincinnati, Ohio obtained in 1959 the North American marketing rights for the drug. Merrell conducted laboratory and mass clinical tests, put the drug on the market in Canada, and in September, 1961, applied for FDA approval for U. S. sales.

Dr. Frances O. Kelsey, a newly employed medical officer at FDA, moved cautiously on the application and withheld approval. In February, 1961, she read a letter in the *British Medical Journal* suggesting that thalidomide might be causing peripheral neuritis.

First reports linking thalidomide with birth malformations reached Merrell from the German drug manufacturer in November, 1961, after a German scientist reported such indications at a medical meeting. Merrell promptly sent a warning to Canadian doctors and the approximately 1200 American doctors conducting clinical tests with it. It was requested that the drug not be given to women of child-bearing age. Merrell so advised the FDA at the time also. In early March, 1962, Merrell withdrew the drug from the Canadian market and experi-

mental use in this country, and dropped its FDA application.

The P.M.A. announced establishment and financing of a Commission on Drug Safety to, among other activities, "investigate an unpredictable problem which is assumed to be connected with use of the European drug (thalidomide)." Lowell T. Coggeshall, M.D., a leading U. S. scientist and vice president of the University of Chicago, was named chairman of the commission. He formerly was president of the American Association of Medical Colleges and of the American Cancer Society.

FDA Commissioner George P. Larrick and Dr. Kelsey both agreed in testifying before the Senate Subcommittee that Merrell had acted with reasonable diligence in withdrawing thalidomide from the market. Dr. Kelsey said that if the entire matter had been up to her alone she would not have withdrawn it much sooner than the company.

Larrick also said then that the FDA had not found any infants born deformed in this country as a result of thalidomide administered in the mass clinical testing program. But he said the birth of deformed infants in this country had been reported where mothers had taken the drug after it had been procured in other nations where it had been marketed.

A Federal grand jury was investigating Merrell in connection with another of its drugs, MER-29, which was designed to inhibit formation of cholesterol in the blood.

The FDA in April, 1960, approved an application for marketing the drug. It was an instant success. But it was withdrawn in April of this year after reports that some patients taking it had developed eye cataracts, and had suffered hair loss, skin changes and leukemia.

The A.M.A. Council on Drugs recently reported that "much longer and more careful studies" were needed to prove the safety of the drug in general or long-term use.

The FDA also investigated enovid, a birth control pill. The FDA said there had been 28 cases reported since September in which women given the contraceptive pill developed a blood clot called thrombophle-

bitis. Six of them died. But the agency cautioned that fatal blood clots can be caused by many things unrelated to any drug.

The pill's manufacturer, G. D. Searle and Co. of Chicago, said a "supercharged atmosphere over thalidomide" was responsible for the FDA's investigation of enovid.

It was the second investigation ordered into the contraceptive pill since it was approved for commercial sale in May, 1960, on the basis of what the FDA called "extensive research data."

* * *

The American Medical Association endorsed in principle the Kennedy Administration's proposed mass immunization program, but urged three important changes.

Dr. F. J. L. Blasingame, executive vice president of A.M.A., outlined the Association's position in a letter to Rep. Oren Harris (D., Ark.), chairman of the House Commerce Committee, which held hearings on the Administration legislation (H.R. 10541) Dr. Blasingame said:

The American Medical Association endorses the principle of H.R. 10541 as applied to the four infectious diseases named in the bill—poliomyelitis, diphtheria, whooping cough and tetanus—but urges that: (1) the bill be limited to the four named diseases; (2) the bill be financed as a grant-in-aid program with the states participating on a matching formula basis; and (3) the programs be administered by State Health Departments, preserving the well-established and accepted relationships between the United States Public Health Service and the States in matters pertaining to health."

The Committee accepted two of the changes proposed by the A.M.A.—that the program be limited to the four specified diseases and administered by state health departments. The bill then was passed by the House and sent to the Senate where it promptly received approval of the Senate Labor and Public Welfare Committee.

Classified Advertisement

Wanted Registered Nurses Hospital Scotland Neck. Starting Salary \$3,120.00 annually. Fringe Benefits.

In Memoriam

**Irene McCain McFarland, M.D.
1924-1962**

On July 4, 1962, Dr. Irene McCain McFarland of Wilson, North Carolina, died in her sleep at the age of 38. She was the daughter of the late Dr. Paul P. McCain and Mrs. Sarah McBrayer McCain.

She was born in Hoke County in 1924 and attended the public schools in Southern Pines. She attended Agnes Scott College, Decatur, Georgia, and received her A.B. degree from the University of North Carolina in Chapel Hill. She was a student at the U.N.C. School of Medicine for two years and received her M.D. degree from University of Pennsylvania in 1948. She interned at Philadelphia General Hospital 1948-1950.

Dr. McFarland's specialty was psychiatry, and her professional experience included membership on the staff of the Dorothea Dix Hospital, Raleigh, North Carolina; school physician for the Blue Mountain College, Mississippi; and staff positions at the South Carolina State Hospital in Columbia, and the Cherry Hospital in Goldsboro.

She was a member of the Wilson County and North Carolina State Medical Societies, and the American Medical Association; the North Carolina Neuropsychiatric Association; the American Psychiatric Association; the North Carolina Health Council; and was president of the North Carolina Mental Health Association.

She is survived by her husband, Dr. Daniel M. McFarland, chairman of the Department of Social Studies at Atlantic Christian College; two sons, Miles and Paul; her mother, Mrs. P. P. McCain; a brother, Dr. John L. McCain of Wilson; two sisters, Mrs. N. H. McCullum, Jr., of Leaksville, and Mrs. John Reagan, Niihamn, Japan.

Dr. McFarland will be long remembered for her pioneering activities in the field of mental health in North Carolina. She was largely responsible for the formation of the Wilson County Mental Health Clinic, one of the first in North Carolina. The first aftercare clinic organized by the state was organized at Wilson under her direction. This clinic provides outpatient care for former patients of state psychiatric institutions.

Life is not reckoned by the number of days you live, but by how well you use the few days allotted to you for the benefit of your loved ones and your fellow men. Irene McFarland used her allotted days abundantly and well.

The Wilson County Medical Society regrets deeply the untimely loss of so illustrious a member.

WILSON COUNTY MEDICAL SOCIETY
HOKE BULLARD, M.D.,
President

1962
TRANSACTIONS
OF THE
AUXILIARY TO THE MEDICAL SOCIETY
OF THE STATE OF NORTH CAROLINA

THIRTY-NINTH ANNUAL MEETING

HELD AT
RALEIGH, NORTH CAROLINA
MAY 6-8, 1962

President, Mrs. George T. Noel, Kannapolis
Recording Secretary, Mrs. Daniel S. Currie, Parkton
Treasurer, Mrs. Ralph Deaton, Jr., Greensboro

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1962

AUXILIARY TO THE MEDICAL SOCIETY
of the
STATE OF NORTH CAROLINA

Memorial Service, Sunday, May 6, 1962 8:00 P.M.

On Sunday night, May 6, 1962, at 8:00 P.M., the Committee on Necrology of the Medical Society, together with Mrs. William E. Adair, Jr., Chairman of Memorials of the Auxiliary, presented a MEMORIAL SERVICE in the Elizabeth Room of the Hotel Sir Walter, Raleigh.

The Invocation was given by Dr. C. Tolbert Wilkinson and was folowed by a roll of the deceased physicians of the state and deceased members of the Auxiliary. Mrs. Adair spoke words of tribute to the deceased Auxiliary members.*

The Cary High School A Cappella Choir, under the direction of Jack White, sang several selections.

Dr. J. E. Danielly, President of Elon College, addressed the gathering. Following his remarks, the Cary Choir sang the Choral Benediction.

***Deceased Auxiliary Members, 1961-62**

Mrs. George Thomas Alexander, Thomasville
Mrs. James Norment Britt, Lumberton (Life Member)

Mrs. Thomas V. Goode III, Statesville
Mrs. Harold Reid Hoke, Greenville
Mrs. Harry L. Johnson, Elkin (Past President)
Mrs. Frank J. Montrose, Chapel Hill
Mrs. Norman Spikes, Durham

Mrs. D. S. Currie, Jr.
Recording Secretary

Mrs. George T. Noel, Jr.
President
Date: June 1, 1962

Finance Committee Meeting—May 7, 1962

Present: President, President-Elect, First Vice-President, Treasurer, Recording Secretary, and Treasurer-Elect.

The Finance Committee met for toast and coffee in the President-Elect's Suite, Sir Walter Hotel, at 9:30 A.M., with Mrs. George T. Noel, Jr., presiding. Mrs. Noel reported briefly on the informal meeting of officers which had been held 2 weeks previously. She stated that two things would be considered during this meeting: The Budget and the Financial Statement. Mrs. Ralph Deaton, Treasurer, then presented the tentative Budget for 1962-63, based on 2211 members, noting an increase in the auditing fee and in the Treasurer's Fund. Mrs. Deaton then presented the Financial Statement with explanations, noting that State Chairmen and Officers have not used their expense allotment. Mrs. Deaton then made the following recommendations:

1. That the President's Secretarial Fund be

changed to The President's Discretionary Fund.

2. That officers and chairmen be reimbursed 7c per mile for travel up to the amount allowed in the budget.

Mrs. John Reece seconded these recommendations and they were passed unanimously to be voted on by the Executive Committee.

There was discussion about postage for the President's use. It was decided that such postage will be listed under printing and supplies.

There being no further business, the meeting was adjourned at 9:40.

Mrs. D. S. Currie, Jr.
Recording Secretary

Mrs. George T. Noel, Jr.
President
Date: June 1, 1962

Executive Committee—May 7, 1962

Present: President, President-Elect, First Vice-President, Parliamentarian, Treasurer, Recording-Secretary.

The Executive Committee met in the Budleigh Room of the Sir Walter Hotel at 10:00 A.M. with Mrs. George T. Noel, Jr., President, presiding. She announced that 2 recommendations had come from the Finance Committee (see minutes of the Finance Committee) to be voted on at the House of Delegates meeting. Mrs. Robert L. Garrard, Acting Parliamentarian, recommended that A.M.E.F. be changed to read American Medical Education and Research Foundation (A.M.E.R.F.) as it has been changed in the National Auxiliary. Mrs. Deaton moved that these 3 recommendations be submitted to the House of Delegates for approval. Mrs. John Reece seconded the motion which was passed unanimously.

Mrs. Ralph Deaton then presented the proposed 1962-63 Budget, based on 2200 members. Mrs. Reece moved and Mrs. Deaton seconded the motion that the Budget be adopted as presented by the Budget and Finance Committee. The motion was carried.

Mrs. Robert L. Garrard stated in the absence of Mrs. C. Henry Sikes, Bylaws Chairman, that there was a change in the wording of the Bylaws to be voted on by the House of Delegates: Article XV—Projects, Section 4 Student Loan Fund, paragraph b; to add the following after the last sentence; in any case the note must be repaid within five (5) years from the original loan date.

Mrs. Noel stated that some county auxiliaries had expressed a desire for a card to use in giving memorials to the Student Loan Fund or in honoring physicians on Doctors Day.

The meeting was adjourned at 10:50 A.M.

Mrs. D. S. Currie, Jr.
Recording Secretary

Mrs. George T. Noel, Jr.
President
Date: June 1, 1962

Board of Directors Annual Meeting—May 7, 1962

The 39th Annual Meeting of the Board of Directors of the Auxiliary to the Medical Society of the State of North Carolina was called to order by the President, Mrs. George T. Noel, Jr., in the Budleigh Room of the Sir Walter Hotel in Raleigh at 11:00 A.M.

Mrs. Bruce Blackmon delivered the Invocation.

Supplemental Reports to the Annual Report were distributed.

In the interest of time, Mrs. John Reece moved that Roll Call and reading of the Minutes be dispensed with. Mrs. Joseph M. Hitch seconded the motion which was carried.

Mrs. Hugh F. McManus, Jr., Convention Chairman, stated that total registration was 105 and she made some announcements concerning the luncheon.

Mrs. Noel thanked members for being present and expressed the warm greetings of Dr. Roscoe D. McMillan, Advisor to the Auxiliary, who was not able to be present.

Mrs. Paul P. McCain, Chairman of Past Presidents, asked the Past Presidents to stand. The following were present: Mrs. A. Byron Holmes, Mrs. Ben Lawrence, Mrs. Robert L. Garrard, Mrs. Joseph M. Hitch.

Mrs. C. Tolbert Wilkinson, President-Elect, stated we are allowed 7 delegates to A.M.A. Auxiliary Convention but have only 3 so far. She asked members to inform her if they were planning to attend the A.M.A. Convention. She also suggested that members consult the Year Book for her message.

Mrs. John C. Reece, 1st Vice-President, stated that our membership is now 2305. She introduced the District Councilors present:

2nd. Mrs. William E. Keiter; 4th, Mrs. John L. McCain;

5th, Mrs. John K. Robertson; 7th, Mrs. Phil Barringer;

9th, Mrs. William M. Long; 10th, Mrs. Candler Willis.

In the absence of Mrs. James F. Reinhardt, 2nd Vice-President, Mrs. Noel introduced the Activities Chairmen of whom the following were present:

Mrs. W. Leslie Kirby, Mental Health Research Endowment;

Mrs. Eugene C. Clayton, Stevens Bed

(Mrs. McCain stated that she had visited all 4 Sanatoria bed patients.)

Mrs. Ralph Deaton, Treasurer, presented the Budget for 1962-63, commenting that estimated disbursements were practically the same except that the auditing fee had been increased and the Bylaws expense decreased and this saving added to secretarial help for the Treasurer.

Mrs. Deaton moved the adoption of the Budget to be approved by the House of Delegates. Mrs. A. Byron Holmes seconded the motion which was carried unanimously. Mrs. Robert L. Garrard

commended the Treasurer for her excellent work and Mrs. Deaton responded with her thanks.

Mrs. Deaton then presented the Financial Statement as of May 1, 1962, with the comment that officers and chairmen send in their expense statements. Mrs. Ben Lawrence moved and Mrs. Edward G. Bond seconded the motion that the Statement be accepted. The motion was carried.

Mrs. Paul P. McCain stated that \$300 had been collected from the Past Presidents and given as an Emergency Fund to Dr. Reece Berryhill, Dean of the School of Medicine at Chapel Hill.

The following Committee Chairmen were recognized, their annual reports having been printed previously and already distributed to the Board of Directors and to each delegate:

Mrs. Bruce Blackmon, Chairman of A.M.E.F., stated that \$3,497.16 had been collected and urged that county contributions to this agency be sent to the state chairman (rather than straight to National) in order that she can keep accurate records.

Mrs. Robert L. Garrard, Awards Chairman, stated that her report would be given at the General Meeting of the Convention the next day.

Mrs. Thomas E. Fitz, Bulletin Chairman, had an addition to her report in the printed supplement to the Annual Report—a total of 195 subscriptions.

Mrs. Amos N. Johnson, Civil Defense Chairman, was present but had no additional report.

Mrs. Leon W. Robertson, Community Service Chairman, referred to her additional report in the printed Supplement.

Mrs. G. Walker Blair, Jr., Doctor's Day Chairman, was recognized and she stated that she had interesting information that had not already been reported. The President promised to call for this if there was time at the end of the meeting.

Mrs. Robert L. McMillan, Legislation Chairman, stated that few reports had been received and also that WHAM was going to be revised.

In the absence of Mrs. William E. Adair, Jr., Chairman of Memorials, Mrs. Noel stated that 7 members had died during the year, including Mrs. Harry L. Johnson, Past President who served during 1951.

Mrs. Edward G. Bond, Chairman of Mental Health, asked for names of county Mental Health chairmen and invited members to view the Mental Health exhibit at the Reynolds Coliseum. She also announced that a tour of Dorothea Dix Hospital had been set up for Wednesday morning at 9:00. Mrs. McCain stated that Mrs. Leif Valand was in charge of this trip.

Mrs. Joseph M. Hitch, Chairman of Nominations, was recognized, her report to be given at the General Meeting on Tuesday.

Mrs. Hadley McDee Wilson, Chairman of Rural Health, was recognized, her report having already been printed.

Mrs. J. W. Roy Norton, Chairman of Scrapbooks, stated that she had received 25 reports

and that 21 counties sent in material for the state scrapbook. Mrs. Hitch revealed that the Nortons had recently had a fire in their home and that Mrs. Norton rescued the scrapbook material before anything else!

Under reports of special committees, Mrs. Hugh F. McManus, Jr., Convention Chairman, was recognized.

The following representatives to other organizations were recognized:

Mrs. Hadley McDee Wilson, Advisory Committee to Medical Society on Rural Health and Education;

Mrs. Joseph M. Hitch, Councilor to the Auxiliary of the Southern Medical Association;

Mrs. John K. Robertson, N. C. Council of Women's Organizations.

UNFINISHED BUSINESS:

Mrs. John C. Reece, 1st Vice-President, presided while the President presented the following recommendation from the Fall Board Meeting which had been approved by the Executive Board and by the Board of Directors:

That the \$153 remaining after the completion of the Yoder Bed Fund be transferred to the Sanatoria Bed Fund.

Mrs. Leon W. Robertson seconded the motion which was carried.

NEW BUSINESS:

Mrs. Reece again presided while Mrs. Noel presented the following recommendations:

- (1) That the President's Secretarial Aid Fund be changed to President's Discretionary Fund.

Mrs. Hitch seconded this motion which was carried.

- (2) It is recommended that officers and chairmen be reimbursed 7¢ per mile for travel up to the amount allowed in the budget. Mrs. Amos Johnson seconded this motion which was carried.

- (3) That the American Medical Education Foundation be changed to American Medical Education Research Foundation (A.M.E.R.F.) to conform with the title of the national parent organization.

Mrs. Garrard seconded this motion which was carried.

The Recording Secretary was asked to read the Bylaws on page 6 concerning the Nominating Committee. Mrs. Garrard stated that the secretary was reading from an old copy of the Bylaws. The secretary then read Article XIII Section 2 of the new Bylaws (this amended section had been approved during the May 1960 Annual Meeting). Mrs. Noel then asked for nominations for the Nominating Committee and the following were nominated:

Mrs. George T. Noel (immediate Past President, automatically the CHAIRMAN)

Mrs. Robert Garrard, 8th District, nominated by Mrs. Amos Johnson, seconded by Mrs. Ben Lawrence

Mrs. John McCain 4th District, nominated by

Mrs. A. B. Holmes seconded by Mrs. Leon Robertson
 Mrs. Candler Willis 10th District, nominated by
 Mrs. R. L. Garrard seconded by Mrs. J. M. Hitch
 Mrs. William Long 9th District, nominated by
 Mrs. John Reece seconded by Mrs. H. M. Wilson
 Alternates:
 Mrs. Edward Bond 1st District, nominated by
 Mrs. John McCain seconded by Mrs. A. B. Holmes
 Mrs. Bruce Blackmon 5th District nominated
 by Mrs. Amos Johnson seconded by Mrs. E. C. Clayton
 Mrs. Garrard moved that this slate be accepted;
 Mrs. McCain seconded this motion which was carried.

In the absence of Mrs. C. Henry Sikes, Bylaws Chairman, Mrs. Robert L. Garrard presented the following minor changes:

- (1) Page 7 Section B, insert word Research between Education and Foundation
- (2) Page 8 Section 4 Article B, at end of that paragraph, insert the following: in any case the note must be repaid within five (5) years from original loan date.

Mrs. Garrard moved that we accept these changes. (Mrs. Deaton asked if they were retroactive and the answer was "no.") Mrs. William Long seconded the motion which was carried.

As there was a little time left, the President called on Mrs. Blair to continue her remarks on Doctor's Day observances throughout the auxiliaries:

Mrs. Blair commented that there was more activity in the smaller auxiliaries. Some of the activities were as follows:

District 2, Pitt County finished two-year project of furnishing Doctors' Lounge.

District 3, Bladen County gave white carnations to widows; Onslow County had picture of wife pinning flower on husband.

District 4, Johnston County sent a note to doctors, informing them that their red carnation money would go to AMEF.

District 5, Harnett County invited President-Elect and Dr. Wilkinson to Open House and widows were invited too; Richmond County recognized at a dinner dance 2 doctors who had practiced 50 years.

District 6, Person County gave the nurses red carnations and the nurses gave the doctors a coffee hour; Wake County gave Hilltop House \$150.

District 7, Gaston County invited active and retired doctors to a covered dish supper; Mecklenburg gave dinner dance for the new doctors in the Charlotte area; Union County found a funny record "Laugh a Spell with Doug Harrell" made by a U.N.C. medical student apparently with a sense of humor.

District 8, Forsyth-Stokes had a Liniment Lounge Party—pink and white stripes.

District 9, Burke County had a covered dish supper—each wife bringing her own specialty; Catawba County had a Left Bank Party Apache style complete with art exhibit of work done by doctors and wives; Watauga County wrote a toast to their M.D.'s and their drug stores displayed posters with names of active and deceased doctors.

District 10, Buncombe County put a poster in the doctors' lounge of each of their 3 hospitals, announcing coffee on the house that day in the snack shop; Haywood County used the King-Anderson Bill as the theme of an information skit.

Mrs. Donnie M. Royal, Past President, who came in late was recognized by the Chair.

Mrs. John Reece moved the adjournment, seconded by Mrs. Holmes, and the motion was carried unanimously. The meeting was adjourned at 12:04.

Mrs. D. S. Currie, Jr.
 Recording Secretary

Mrs. George T. Noel, Jr.
 President

Date: June 1, 1962

**Virginia Dare Room, Hotel Sir Walter
 Raleigh, North Carolina
 Tuesday, May 8, 1962
 9:00 A.M.**

HOUSE OF DELEGATES

The 39th Annual Meeting of the House of Delegates of the Auxiliary to the Medical Society of the State of North Carolina met Tuesday, May 8, in the Virginia Dare Room of the Sir Walter Hotel, Raleigh. Mrs. George T. Noel, Jr., President, presided. The Meeting was called to order at 9:07. Mrs. William E. Adair gave the Invocation.

Mrs. Amos N. Johnson moved to dispense with the Roll Call and Minutes in the interest of time.

Mrs. John C. Reece, 1st Vice-President, took the chair while Mrs. Noel presented her President's Report based on 2328 members, 59 auxiliaries, and 5 honorary members. Mrs. Reece thanked her for her excellent report. Motion to accept the report was given by Mrs. Bruce Blackmon, seconded by Mrs. Adair, and enthusiastically passed by the delegates.

Mrs. C. Tolbert Wilkinson, President-Elect, was recognized.

Mrs. Reece, 1st Vice-President, recognized the following councilors (or their representatives) who were present and who in turn presented their county presidents:

1st District, Mrs. John Bonner; 2nd, Mrs. Simmons Patrick; 3rd, Mrs. James D. Piver; 5th, Mrs. John K. Robertson; 7th, Mrs. Phil Barringer; 8th, Mrs. Andrew Crutchfield; 9th, Mrs. William Long.

Mrs. James F. Reinhardt, 2nd Vice-President, introduced the following Activities Chairmen:

Mrs. W. Leslie Kirby, Mental Health Research Endowment Fund;

Mrs. Eugene C. Clayton, Cooper Bed; (patients are: Mary Ethel Williams, Cooper Bed; Minnie

Williams, McCain Bed; Mrs. Birchfield, Stevens Bed).

Mrs. Ralph Deaton, Treasurer, presented the Financial Statement. She was warmly thanked for her work by Mrs. Noel after which a standing vote of thanks was given by the delegates.

Other officers recognized were the Recording Secretary; Director of Reports, Mrs. Joseph M. Hitch; Parliamentarian, Mrs. Robert L. Garrard.

The following Committee Chairmen were introduced:

Mrs. Bruce Blackmon, A.M.E.F.; Mrs. Robert L. Garrard, Awards; Mrs. Amos N. Johnson, Civil Defense; Mrs. Leon W. Robertson, Community Service; Mrs. Robert L. McMillan, Legislation; Mrs. William E. Adair, Jr., Memorials; Mrs. Edward G. Bond, Mental Health, who called attention to the exhibit on Mental Health at the Coliseum and reminded Delegates of the tour of Dorothea Dix Hospital the following morning; Mrs. Joseph M. Hitch, Nominations; Mrs. Hadley McDee Wilson, Rural Health.

Mrs. Hugh F. McManus, Jr., Convention Chairman, expressed her pleasure to see so many women and reminded all to register so that an accurate count could be made.

UNFINISHED BUSINESS:

The Recording Secretary read the following Recommendation from the Board of Directors' Meeting:

That the \$153 remaining after the completion of the Yoder Bed Fund be transferred to the Sanatoria Bed Fund.

Motion was made to accept this recommendation by Mrs. Frank W. Jones, seconded by Mrs. Amos N. Johnson, and passed.

NEW BUSINESS:

Mrs. Ralph Deaton, Treasurer, presented the tentative Annual Budget. After her presentation, Mrs. Deaton moved that the Budget be accepted; the motion was seconded by Mrs. James F. Reinhardt, and passed unanimously by the House.

The Recording Secretary was asked to read the list of Nominating Committee members for 1962-63. They are as follows:

Mrs. George T. Noel, Jr.	Chairman
Mrs. Robert L. Garrard	8th Dist.
Mrs. John L. McCain	4th Dist.
Mrs. Candler Willis	10th Dist.
Mrs. William L. Long	9th Dist.

and two Alternates:

Mrs. Edward G. Bond	1st Dist.
Mrs. Bruce Blackmon	5th Dist.

The Recording Secretary was then asked to read the following Recommendations from the Board of Directors:

- (1) That the President's Secretarial Fund be changed to the President's Discretionary Fund.
- (2) That officers and chairmen be reimbursed 7¢ per mile for travel up to the amount allowed in the budget.
- (3) That the American Medical Education

Foundation be changed to American Medical Education Research Foundation to conform with the title of the national parent organization.

The above 3 recommendations were passed by the House.

Mrs. Robert L. Garrard in the absence of Mrs. C. Henry Sikes, Bylaws Chairman, presented the following changes:

Page 7, insert word **Research** between **Education** and **Foundation**.

Insert the following words: in any case the note must be repaid within five (5) years from the original loan date. Page 8, Section 4, Student Loan Fund.

Mrs. Garrard moved the adoption of these changes; they were seconded by Mrs. Hadley Wilson. Mrs. Garrard explained how much time had gone into the work on the Bylaws; that they had been read and judged and approved by the Medical Society's legal counsel. The motion was carried.

Mrs. Noel introduced Mrs. Harlan English, President of the Woman's Auxiliary to the American Medical Association.

The meeting was adjourned at 10:00 for a coffee break before the General Meeting.

Mrs. D. S. Currie, Jr.
Recording Secretary

Mrs. George T. Noel, Jr.

President

Date: June 1, 1962

General Meeting—May 8, 1962

The 39th Annual General Meeting of the Auxiliary to the Medical Society of the State of North Carolina convened in the Virginia Dare Room of the Sir Walter Hotel, Raleigh, and was called to order at 10:37 A.M. by the President, Mrs. George T. Noel, Jr. The Invocation was given by Mrs. Chalmers R. Carr and was followed by the Pledge of Loyalty by all present.

Mrs. Alexander Webb, President of the Wake County Auxiliary, warmly welcomed the group followed by a gracious response from Mrs. Andrew Crutchfield.

Mrs. Noel introduced the following guests:

Mrs. Harlan English, President of the Auxiliary to the A.M.A.

Mrs. Roy A. Douglas, President of the Auxiliary to the Southern Medical Association.

Mrs. Claude B. Squires, wife of the N. C. Medical Society's President.

Mrs. John R. Kernodle, wife of the President-Elect of N. C. Medical Society.

Mrs. Noel stated that Dr. Roscoe D. McMillan was greatly missed.

There followed an interlude of music by Mrs. Vernon Jeter who sang a Southern Ballad, "Lindy Lou", accompanied at the piano by Mrs. Donnie M. Royal; Mrs. James Rose played on cow bells an arrangement of "The Bells of St. Mary's"; and Mrs. Charles F. Williams sang "Black Is the Color of My True Love's Hair", accompanying herself on the guitar.

Mrs. Paul P. McCain introduced the following Past Presidents:

Mrs. W. B. Murphy, Mrs. Charles Eldridge, Mrs. Sidney Smith, Mrs. Carl Pace, Mrs. Reece Berryhill, Mrs. Gilbert Billings, Mrs. Powell G. Fox, Mrs. Donnie M. Royal, Mrs. R. L. Garrard, Mrs. J. M. Hitch.

At this time Mrs. Noel introduced with pride Mrs. Roy A. Douglas who enumerated the privileges of belonging to Southern: (1) Promoting friendship and good fellowship among Southern doctors and their families; (2) Observance of Doctor's Day, memorializing and honoring our doctors both living and dead by the use of carnations, contributions to A.M.E.F., special volunteer work in hospitals; (3) Preservation of the history of the romance of the heroes of Southern medicine (for there is just as much romance now as there has been in the past). She stated that stories concerning Southern medicine are preserved in Southern's Birmingham office. She then said that all husbands must be a member of Southern, citing the following benefits: (1) The annual meeting of over 14,000 members has scientific and general sessions which feature outstanding symposia; (2) The monthly journal; (3) Participation in an insurance program. Wives are automatically members of the Auxiliary when their husbands pay their dues. She closed by inviting the group to the Southern Medical Convention in Miami Beach next November 12, with Dade County as host. There will be symposia on office problems and on astro-medicine with speakers from Cape Canaveral and a tour of the Cape arranged.

Mrs. Noel then introduced Dr. Claude B. Squires, President of the Medical Society, who spoke briefly. He reported on Governor Sanford's message of SAFETY and suggested that the auxiliary read accounts of it in the papers and in the N. C. Medical Journal. He mentioned the legislative task ahead and commended the auxiliary for its contributions to A.M.E.F.; for its WHAM Workshop; and urged continued support in the legislative field, saying that the great undecided group of people must be reached, citing survey by Congressmen in which 37% voted yes, 21% no, and 42% were undecided about the King-Anderson Bill; 23% said yes, 35% said no, 42% were undecided about Blue Cross plan. He voiced concern for this large area of undecideds. He closed by reading a letter which a doctor wrote to his Congressman, expressing his reasons for opposing the Kennedy program under Social Security, principally because bureaus cannot practice medicine.

Mrs. Robert L. Garrard presented the annual awards. They were as follows:

A.M.E.F. Shirley Kingsbury Fox "Talents for Service" Award donated by Mrs. P. G. Fox, Raleigh.

Winner: Guilford-High Point \$100.00

BULLETIN SUBSCRIPTIONS—Donated by Mrs. Robert D. Croom, Maxton.

Winner: Johnston County—\$5.00

FIRST 100% DUES PAID—Donated by Mrs. Gilbert M. Billings, Morganton.

Winner: Scotland County—\$5.00

Honorable Mention: Watauga County

HEALTH CAREERS—The Rachel Taylor Award—donated by Mrs. Almon R. Cross, High Point

Winner for small counties: Catawba County—\$5.00

Honorable Mention: Wayne County

Winner for large counties: Guilford-High Point—\$5.00

Honorable Mention: Forsyth-Stokes

MENTAL HEALTH—Donated by Mrs. Karl B. Pace, Greenville

Winner: Pitt County—\$5.00

MENTAL HEALTH RESEARCH ENDOWMENT FUND—Donated by Mrs. Robert L. Garrard, Greensboro

Winner: Johnston County—\$10.00

Honorable Mention: Guilford-Greensboro

STUDENT LOAN FUND—Donated by Mrs. Roscoe D. McMillan, Red Springs and Mrs. B. Watson Roberts, Durham

Winner: Watauga County—\$10.00

Honorable Mention: Iredell-Alexander

YEARBOOK—Donated by Mrs. Baxter S. Troutman, Lenoir

Winner: Gaston County—\$5.00

PRESIDENT'S ACHIEVEMENT AWARD FOR OVERALL EXCELLENCE—Donated by Mrs. George T. Noel, Jr., Kannapolis

Winner for small counties: Pitt County—\$10.00

Honorable Mention: Cabarrus County

Winner for large counties: Forsyth-Stokes—\$10.00

Honorable Mention: Gaston County

Mrs. Noel then presented Mrs. Harlan English, the charming and efficient President of the Woman's Auxiliary to the A.M.A., who brought greetings from her organization. She read Dickens poem in praise of doctors. In speaking of what wives can do, she developed the theme that wives must give security to their families and friends. She recited a long list of activities that wives have taken part in and stated that while physical security is important, emotional security is most important function of the doctor's wife. She stated that serving in the community is the auxiliary's real purpose. She urged the auxiliary to give good health programs in other organizations such as P.T.A., etc., stating that program suggestions will be given to county presidents in their packets. She said that current legislation is a good opportunity for members to talk to other people to acquaint them of pressures that are being brought to bear; that there is a whole new set of thinking that we must decide whether we are for or against. She said the next few weeks are crucial.

The audience was very attentive and the applause was enthusiastic. Mrs. Noel commented

that Mrs. English had inspired us and informed us.

The President then asked for the report of the Nominating Committee and Mrs. Joseph M. Hitch, Chairman, gave it as follows:

President—Mrs. C. Tolbert Wilkinson, Wake Forest

President-Elect—Mrs. John C. Reece, Morganton

1st Vice-President—Mrs. Amos N. Johnson, Garland

2nd Vice-President—Mrs. Leon W. Robertson, Rocky Mount

Treasurer—Mrs. Eugene C. Clayton, Asheville

Mrs. Noel called for nominations from the floor and there were none; whereupon, Mrs. Carroll Lupton moved that the slate be adopted. Mrs. James Piver seconded the motion and it was carried.

Mrs. Joseph M. Hitch, Past President, then installed with appropriate remarks the newly elect-

ed officers, together with Mrs. Daniel S. Currie, Jr., who was continuing as Recording Secretary.

Mrs. Noel then presented the gavel to Mrs. Wilkinson who in turn presented the Past Presidents' pin to Mrs. Noel, paying tribute to her for her exemplary service.

Mrs. Wilkinson, as new President, made a few inaugural remarks, closing with Prayer.

Mrs. Hugh F. McManus, Jr., Convention Chairman, made some announcements concerning the luncheon. She reported that the total registration was 236.

Mrs. Wilkinson paid tribute to the Wake County Auxiliary for their delightful convention facilities.

The Meeting was adjourned at 12:10.

Mrs. D. S. Currie, Jr.
Recording Secretary

Mrs. George T. Noel, Jr.
President

Date: June 1, 1962

Report of Treasurer and Auditor's Report

The Audited Report of the Treasurer's records for the year 1961-1962 is submitted herewith, receipts and disbursements having been recorded and transactions made in accordance with the Bylaws.

A membership of 2,336 was attained in 1961-1962 which is more than we have ever had and in spite of the fact that State dues have been raised fifty cents per member.

The financial picture of the Auxiliary is stable. In addition to a very healthy balance, we have maintained a Checking Account Contingency Fund which is represented by share interests of \$2,000.00 in the Home Federal Savings and Loan Association, Greensboro, and which has received 4% interest during the year.

Contributions to the Student Loan Fund and Mental Health Research Fund were very generous this year. The Mental Health Research Fund has a balance of \$2,693.93 after sending Dr. George Ham, Director of Psychiatry, Memorial Hospital, Chapel Hill, a check for \$64.15 which represented the bank interest accrued during the past year. This was the first check to be sent, and we look forward to the time when the completed fund of \$10,000.00 will send him \$400.00 a year.

The Student Loan Fund is being used by ten students and doctors at this time. Three doctors are in the process of repaying their loans. We now have a balance of \$1,730.42 which will enable us to continue to make

loans during the coming year. As a result of a change in the By-laws students will be asked to repay their loan entirely within five years from the time that the loan is made.

Several other changes concerning finances took place during the business sessions of the Convention. It was agreed that officers and chairmen would be reimbursed seven cents per mile of travel up to the amount that has been allotted them in the budget. The President's Secretarial Aid fund has been renamed the President's Discretionary Fund.

During the past four years I have watched the Auxiliary grow in membership and funds. At the beginning of my term we had a membership of 2258 and total assets of \$46,945.92. We now have a membership of 2336 and total assets of \$58,687.12. This clearly indicates that the Auxiliary is a growing, working organization.

Personally, I feel as though I have developed equally as much in experience, knowledge and friendship. I have been continually impressed by those I have had the privilege of meeting and working with. I feel confident that the new Treasurer, Mrs. Eugene C. Clayton of 17 St. Charles Place, Asheville will find the same to be true for her.

Fran K. Deaton

Mrs. W. Ralph Deaton, Jr.

REPORT ON EXAMINATION

June 30, 1962

Mrs. W. Ralph Deaton, Jr., Treasurer
The Auxiliary to the Medical Society of the State of North Carolina
Greensboro, North Carolina

Dear Mrs. Deaton:

We have examined the cash receipts and disbursements records of the Auxiliary to the Medical Society of the State of North Carolina for the fiscal year ended June 30, 1962. Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

We herewith present our report which consists of the following statements:

- Exhibit A—Statement of Assets and Funds Balances
- Exhibit B—Statement of Cash Receipts and Disbursements
- Schedule 1—Investments
- Schedule 2—Notes Receivable—Student Loans
- Schedule 3—Cash Disbursements

In our opinion, the accompanying statements present fairly the assets and funds balances arising from cash transactions of the Society at June 30, 1962, and the cash receipts and disbursements transactions for the year then ended on a basis consistent with that of the preceding year.

Respectfully submitted,
Davenport, Marvin & Caudle
Certified Public Accountants

THE AUXILIARY TO THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA

STATEMENT OF ASSETS AND FUND BALANCES

June 30, 1962

ASSETS

Current Funds:
Cash in Bank—Checking Account
Cash in Bank—Savings Account
Total Current Funds

\$ 2,736.06
2,000.00

\$ 4,736.06

Endowment Funds:

Cash in Bank—Savings Accounts:
Student Loan Fund
Mental Health Research Fund

\$1,730.12
2,693.93

Investments (at cost)—Schedule 1
Notes Receivable—Student Loans—
Schedule 2

4,121.35
42,000.00
7,541.82

Total Endowment Funds
Total Assets

53,966.17
\$58,702.23

FUND BALANCES

Current Funds:

General Expense Fund
Secretarial Aid Fund
Sanatoria Bed Fund
Convention Expense Fund
Contingency Fund
Total Current Funds

\$ 1,503.07
277.05
500.00
455.94
2,000.00
\$ 4,736.06

Endowment Funds:

Student Loan Fund
Mental Health Research Fund
Paul Yoder Endowment Fund
Martin L. Stevens Endowment Fund
George M. Cooper Endowment Fund
McCain Endowment Fund
Total Endowment Funds
Total Fund Balances

9,272.24
2,693.93
10,000.00
10,500.00
10,000.00
11,500.00
53,966.17
\$58,702.23

EXHIBIT A

**THE AUXILIARY TO THE MEDICAL SOCIETY
OF THE STATE OF NORTH CAROLINA
STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS
For the Fiscal Year Ended June 30, 1962**

	Total Current Funds	General Expense	Secretarial Aid	Sanatoria Bed	Convention Expense	Contingency	Student Loan Fund	Mental Health Research Fund	Paul Yoder Endowment Fund
Receipts:									
National Dues	\$ 2,324.00	\$2,324.00							
State Dues	3,486.00	3,486.00							
Medical Society of the State of North Carolina:									
National Fall Conference	300.00	300.00							
Presidents Secretarial Aid	600.00		600.00						
Convention Expenses	500.00				\$500.00				
Interest on U. S. Treasury Savings Bonds:									
Stevens Endowment Fund	359.00			359.00					
Cooper Endowment Fund	276.00			276.00					
McCain Endowment Fund	317.40			317.40					
Yoder Endowment Fund	281.25			281.25					
Interest on Savings Accounts:									
Contingency Fund	80.00	80.00					49.38	64.15	3.00
Student Loan Fund									
Mental Health Research Fund									
Yoder Endowment Fund									
Interest on Student Loan Receivable Payments on Student Loan Receivable Contributions	9.00	9.00					26.85		
Sale of "Handbook" and "Histories"	25.50	25.50					433.15		
Overpayment of Dues	1.00	1.00					1,563.17	698.00	
Bulletin Subscription									
Transfers from:									
Student Loan Fund	2,050.00	2,050.00		153.00					
Paul Yoder Endowment Fund	153.00								
Sanatoria Bed Fund									
Total Receipts	10,762.15	8,275.50	600.00	1,386.65	500.00	.00	2,072.55	687.05	3.00
Disbursements—Schedule 3	9,621.17	7,279.64	474.57	1,386.65	480.31	.00	2,050.00	1,419.20	153.00
Excess of Receipts Over Disbursements	1,140.98	995.86	125.43	.00	19.69	.00	22.55	1,385.05	(150.00)
Cash on Hand, July 1, 1961	3,595.08	507.21	151.62	500.00	136.25	2,000.00	1,707.87	1,308.88	150.00
Cash on Hand, June 30, 1962	\$ 4,736.06	\$1,503.07	\$277.05	\$ 500.00	\$455.94	\$2,000.00	\$1,730.42	\$2,693.93	\$.00

**THE AUXILIARY TO THE MEDICAL SOCIETY
OF THE STATE OF NORTH CAROLINA
SCHEDULE OF INVESTMENTS**

June 30, 1962

Schedule 1

		Endowment Fund				
		George M.		Paul		
		Cooper		McGinn		Yoder
Kind	Series	Date Issued	Maturity Date	Total	Martin L. Stevens	
U. S. Treasury Savings Bonds	G	July 1950	July 1962	\$ 2,000.00	\$ 2,000.00	
U. S. Treasury Savings Bonds	G	June 1951	June 1963	1,000.00	1,000.00	
U. S. Treasury Notes		July 1959	May 1964	2,000.00	2,000.00	
U. S. Treasury Savings Bonds	K	June 1952	June 1964	1,000.00	1,000.00	
U. S. Treasury Savings Bonds	K	August 1954	August 1966	1,500.00	\$ 1,500.00	
U. S. Treasury Savings Bonds	K	September 1954	September 1966	2,500.00		
U. S. Treasury Savings Bonds	K	May 1955	May 1967	1,500.00	1,500.00	
U. S. Treasury Savings Bonds	K	June 1955	June 1967	11,000.00	3,000.00	\$ 1,000.00
U. S. Treasury Savings Bonds	K	August 1955	August 1967	6,000.00	1,000.00	2,000.00
U. S. Treasury Savings Bonds	K	September 1955	September 1967	500.00		
U. S. Treasury Savings Bonds	H	January 1958	January 1968	1,000.00		
U. S. Treasury Savings Bonds	H	March 1958	March 1968	500.00		
U. S. Treasury Savings Bonds	K	May 1956	May 1968	2,000.00		
U. S. Treasury Savings Bonds	K	June 1956	June 1968	1,500.00		
U. S. Treasury Savings Bonds	K	April 1957	April 1969	1,500.00		
U. S. Treasury Savings Bonds	H	February 1959	February 1969	1,000.00	1,000.00	
U. S. Treasury Savings Bonds	H	September 1959	September 1969	1,000.00	1,000.00	
U. S. Treasury Notes		October 1960	October 1969	2,000.00	2,000.00	
U. S. Treasury Savings Bonds	H	June 1961	June 1971	2,500.00		
Total Investments				\$12,000.00	\$10,500.00	\$11,500.00
						\$2,500.00
						\$10,000.00

SCHEDULE OF NOTES RECEIVABLE—STUDENT LOANS

June 30, 1962

Schedule 2

Name	Amount	
Jerome Miles Schachter	\$ 358.11	
Norris A. Biggerstaff	183.71	
Thomas A. Readling	1,000.00	
Ronnie Lee Stanley	700.00	
John Edwin Drew	1,000.00	
Robert H. Fleming	500.00	
Dick Redmond Lavender	1,000.00	
Michel Larome Barringer	1,000.00	
Jimmy Lynn Taylor	500.00	
Douglas Ray Smith	1,000.00	
Total	\$7,511.82	

Note—Student loans are payable three years after date of note and bear interest at 3% per annum on unpaid balance therefrom. Following notes due at June 30, 1962:

Name	Dated	Amount
Jerome Miles Schachter	10-15-55	\$ 358.11
Norris A. Biggerstaff	1-30-57	183.71
Thomas A. Readling	1-30-59	500.00*
Ronnie Lee Stanley	1-30-59	200.00*
John Edwin Drew	5-31-59	500.00*
Total		\$2,041.82

*One of two notes

**THE AUXILIARY TO THE MEDICAL SOCIETY
OF THE STATE OF NORTH CAROLINA
SCHEDULE OF CASH DISBURSEMENTS**

Schedule 3

For the Fiscal Year Ended June 30, 1962

	Total Current Funds	General Expense	Secretarial Aid	Sanatoria Bed	Current Funds			Student Loan Fund	Mental Health Research Fund	Paul Yoder Endowment Fund
					Convention Expense	Contingency				
	\$2,336.00	\$2,336.00	\$	\$	\$	\$	\$	\$	\$	\$
National Dues										
Officers and Chairmen Expenses:										
President	947.67	473.10	474.57							
President Elect	400.00	400.00								
Past President	100.00	100.00								
Vice Presidents and Secretary	85.71	85.71								
Treasurer	350.00	350.00								
Councilors	100.00	100.00								
Auxiliary News	398.55	398.55								
Other	206.72	206.72								
Science Fair	50.00	50.00								
Refund of Overpayment of Dues	25.50	25.50								
Bulletin Subscription	1.00	1.00								
Student Loan Grants	2,050.00	2,050.00								
Safety Deposit Box	5.50	5.50								
Professional Services—Auditing	125.00	125.00								
Treasurer's Fidelity Bond	50.00	50.00								
Printing and Supplies	491.80	491.80								
Miscellaneous WHAM Expense	30.76	30.76								
Upkeep of Sanatoria Bldgs.										
McCaun (N. C. Sanatorium)	183.00				183.00					
Cooper (Eastern N. C. Sanatorium)	193.80				193.80					
Stevens (Western N. C. Sanatorium)	211.80				211.80					
Yoder (Gravely Sanatorium)	111.00				111.00					
Convention Expenses:										
Annual Report Supplies	42.66				42.66					
Programs	25.75				25.75					
Luncheon, Hostess Room, etc.	411.90				411.90					
Dr. George Ham, Director of Research, Memorial Hospital, Chapel Hill, N. C.									64.15	
Transfers to:										
General Expense Fund	687.05				687.05			2,050.00		153.00
Sanatoria Bed Fund	\$9,621.17				\$1,386.65			\$2,050.00		\$153.00
Mental Health Research Fund		\$7,279.64	\$471.57	\$	\$480.31	\$	.00		\$64.15	

ROSTER OF MEMBERS

1961-1962

HONORARY MEMBERS

Holmes, Mrs. Andrew Byron	
112 Church Street	Fairmont
Judd, Mrs. E. Clarence	
2108 Woodland Ave.	Raleigh
Knight, Mrs. William Pinkney	
720 Summit Ave.	Greensboro
McCain, Mrs. Paul Pressly	
1102 Tremont Road	Wilson
Taylor, Mrs. Frederick R.	
1113 Johnson St.	High Point

LIFE MEMBERS

Eldridge, Mrs. Charles Patterson	
1621 St. Mary's St.	Raleigh
Freeman, Mrs. Jere David	
527 Forest Hills Dr.	Wilmington
Johnson, Mrs. George W.	
1803 Chestnut St.	Wilmington
Murray, Mrs. Robert Lebby	
Box 216	Raeford
Thomas, Mrs. Charles Darwin	Black Mountain
Yoder, Mrs. Paul A.	
1919 Robin Hood Rd.	Winston-Salem

MEMBERS

Abbott, Mrs. Robert West	
Cherry Hospital	Goldsboro
Abernathy, Mrs. Henry	
1140 6th St., N.E.	Hickory
Abernathy, Mrs. Paul McBee	
510 Country Club Dr.	Burlington
Abse, Mrs. D. Wilfred	
Route 3, Box 98	Durham
Acuff, Mrs. Calvin Clifford	Glen Alpine
Adair, Mrs. William Edward, Jr.	
Old Post Road	Erwin
Adams, Mrs. Carlisle	
1500 Meadowood Lane	Charlotte
Adams, Mrs. Carlton Noble	
2730 Windsor Road	Winston-Salem
Adams, Mrs. Charles H.	
Box D	Grover
Adams, Mrs. Charles Patrick	
1907 Forest Hill Dr.	Greenville
Adams, Mrs. Harley Stewart	
432 Carolina Circle	Winston-Salem
Adams, Mrs. Simeon Huey	
1413 Lineberger Ave.	Gastonia
Ader, Mrs. Ottis Ladeau	Walkertown
Aderholt, Mrs. Marcus Lafayette, Jr.	
1013 Rotary Dr.	High Point
Adickes, Mrs. Henning Frederick, Jr.	
3832 Selwyn Ave.	Charlotte
Adkins, Mrs. Troglor Francis	
2810 Dogwood Rd.	Durham
Agner, Mrs. Marshall Edward	
Box 157	Cherryville
Agner, Mrs. Roy Augusta, Jr.	
617 Mocksville Ave.	Salisbury

Albergotti, Mrs. Julian S., Jr.	
412 Livingston Dr.	Charlotte
Alderman, Mrs. Allison Mondonville, Jr.	
1311 Westfield Ave.	Raleigh
Aldermant, Mrs. Allison Mondonville, Jr.	
Drawer P	Four Oaks
Alexander, Mrs. Eben, Jr.	
1941 Georgia Ave.	Winston-Salem
Alexander, Mrs. Henry C., Jr.	
221 Chase St.	Charlotte
Alexander, Mrs. James Moses	
255 Colville Rd.	Charlotte
Alexander, Mrs. James Porter	
1910 Beverly Dr.	Charlotte
Alexander, Mrs. Joseph Black	
N. Elm St.	Lumberton
Alexander, Mrs. Lawrence M.	
308 Green St.	Sanford
Alexander, Mrs. Sydenham B.	
511 Dogwood Dr.	Chapel Hill
Alexander, Mrs. William McKinley	
520 Valley St.	Hendersonville
Allen, Mrs. Charles Insley, Sr.	
Morven Road	Wadesboro
Allen, Mrs. George Calvin	
206 E. 17th St.	Lumberton
Allen, Mrs. John O. Henry	
201 Broad St.	Marion
Allen, Mrs. LeRoy	
1603 Ridge Rd.	Raleigh
Allen, Mrs. William	
Knollwood	Southern Pines
Allgood, Mrs. John William, Jr.	
105 Knollwood Dr.	Greensboro
Alsop, Mrs. William Byrn, Jr.	
261 Westview Dr.	Winston-Salem
Altany, Mrs. Franklin Edward	
822 Longbow Rd.	Charlotte
Alyea, Mrs. Edwin Pascal	
3102 Devon Rd., Hope Valley	Durham
Anderson, Mrs. Banks, Jr.	
2214 Elba St.	Durham
Anderson, Mrs. John Bascom	
294 Vanderbilt Rd.	Asheville
Anderson, Mrs. Norman LaRue	
33 Forest Road	Asheville
Anderson, Mrs. William Banks	
502 E. Forest Hills Blvd.	Durham
Andrew, Mrs. John Montgomery	
3½ N. Main St.	Lexington
Andrew, Mrs. Lacy Allen, Jr.	
2839 Reynolds Rd.	Winston-Salem
Andrews, Mrs. Bob Barcus	
503 W. 31st	Lumberton
Andrews, Mrs. Robert Jackson	
1130 S. Live Oak Parkway	Wilmington
Andrews, Mrs. Vernon Liles	Mt. Gilead
Anlyan, Mrs. William George	
1124 Woodburn Rd.	Durham
Anthony, Mrs. Luther Leslie	
1210 Jones St.	Gastonia

Anthony, Mrs. William Augustus 1203 Belvedere Ave.	Gastonia	Bain, Mrs. Joe A. 604 Banks Avenue	Goldsboro
Antonakos, Mrs. Theodore	Danbury	Baker, Mrs. Barnwell Rhett 31 Buena Vista Rd.	Asheville
Arey, Mrs. John Vincent 89 Caldwell Dr.	Concord	Baker, Mrs. Herbert Marvin	Faith
Armistead, Mrs. Drury Branch 1603 E. 6th St.	Greenville	Baker, Mrs. Horace Mitchell, Sr. 703 N. Elm St.	Lumberton
Armstrong, Mrs. Beverly Weller 1 Armstrong Drive	Charlotte	Baker, Mrs. Horace Mitchell, Jr. 1901 N. Elm St.	Lumberton
Armstrong, Mrs. George Herbert	Mt. Gilead	Baker, Mrs. Larry Duane 3116 Gardner Park Dr.	Gastonia
Arney, Mrs. William Charles W. Park Drive	Morganton	Baker, Mrs. Lenox Dial 3106 Cornwall Rd., Hope Valley	Durham
Arnold, Mrs. Jesse Hoyt, Jr. 709 W. Highland Ave.	Kinston	Baker, Mrs. Thomas William 2029 Queens Rd.	Charlotte
Arnold, Mrs. Ralph A. 911 Urban Ave.	Durham	Baldwin, Mrs. William Edwin, Jr. Wilmington Rd.	Whiteville
Arrendell, Mrs. Cad Walder, Jr. 500 Merwick Circle	Charlotte	Ballenger, Mrs. Claude Newton 750 Pee Dee Ave.	Albemarle
Arthur, Mrs. Robert 708 Rush Road	Fayetteville	Ballew, Mrs. James Robert 901 Lake Boone Trail	Raleigh
Arthur, Mrs. Robert Key, Jr. 801 Hillcrest Drive	High Point	Baluss, Mrs. John William, Jr. 2315 Westdale Dr.	Fayetteville
Ashe, Mrs. John Rainey, Jr. 203 Grandview Dr.	Concord	Bandy, Mrs. William Henry Dogwood Hills	Newton
Ashford, Mrs. Charles Hall 605 Pollock St.	New Bern	Banner, Mrs. Charles Whitlock 808 N. Elm St.	Greensboro
Atkins, Mrs. Stanley Sisco 7 N. Dogwood Rd.	Asheville	Barden, Mrs. Graham Arthur, Jr. Tenella Road	New Bern
Auman, Mrs. Edwin Lewis 1615 Guyer Street	High Point	Barefoot, Mrs. Graham Ballard 120 Forest Hills Dr.	Wilmington
Ausband, Mrs. John Rufus 909 Goodwood Rd.	Winston-Salem	Barefoot, Mrs. Julius J., Sr. 611 Middle St.	New Bern
Ausherman, Mrs. Howard Milton 233 Fenton Place	Charlotte	Barefoot, Mrs. Julius Jackson, Jr. Old Cherry Point Rd.	New Bern
Austin, Mrs. Frederick DeCosta, Jr. 650 Colville Rd.	Charlotte	Barefoot, Mrs. William Frederick Chadbourn Rd.	Whiteville
Averett, Mrs. Leland Stanley, Jr. 1506 Whitehall	High Point	Barker, Mrs. Christopher Sylvanus 711 Broad St.	New Bern
Aycock, Mrs. Edwin Burtis Longmeadow Rd.	Greenville	Barnes, Mrs. Frank Edward, Jr. 513 Church St.	Smithfield
Aycock, Mrs. James Bernice 110 Maehill Dr.	Lenoir	Barnes, Mrs. Henry Eugene, Jr. 528 First Ave., N. W.	Hickory
Aycock, Mrs. William Glenn Forest Lake	Mebane	Barnes, Mrs. Jesse Thomas 1600 W. Salisbury St.	Asheboro
Ayers, Mrs. James Salisbury Finch St.	Clinton	Barnes, Mrs. M. Russell, Jr. 401 Woodland Dr.	Jacksonville
Badrock, Mrs. Frank Caswell School	Kinston	Barnhardt, Mrs. Albert Earl, Box 662, Kannapolis Barnhill, Mrs. Otha Allen P. O. Box 488	Elizabethtown
Bagby, Mrs. Bathurst Browne, Jr. 17 Howland Rd.	Asheville	Barrett, Mrs. John Milton 805 James St.	Greenville
Baggett, Mrs. Joseph Woodrow 365 Valley Rd.	Fayetteville	Barrick, Mrs. Harry, Jr. 1900 Highland Place	Raleigh
Bailey, Mrs. Joseph Peden Flat Rock	Hendersonville	Barrier, Mrs. Cecil Lee Route 3	Lawndale
Bailey, Mrs. Lloyd Whitfield 3208 Hawthorne Rd.	Rocky Mount	Barrier, Mrs. Henry Webster 1500 Central Dr.	Concord
Bailey, Mrs. Mercer H. Winslow Acres	Elizabeth City	Barringer, Mrs. Archie Lipe Box 278	Mt. Pleasant
Bailey, Mrs. Robert Carl 330 Scenic Dr.	Concord	Barringer, Mrs. Phil Lewis Forest Hills	Monroe

Barringer, Mrs. Thad Jones Rt. 6, Leadmine Rd.	Raleigh	Bennett, Mrs. Ernest Claxton Box 295	Elizabethtown
Barron, Mrs. Archie A. 2251 Selwyn Ave., Apt. 4	Charlotte	Bennett, Mrs. Herron Kent 309 Eden Terrace	High Point
Barron, Mrs. John Isaac 508 Riverside Dr.	Morganton	Bennett, Mrs. Hugh Hammond, Jr. Alamance Acres	Burlington
Barry, Mrs. William 3602 Drayton Road	Fayetteville	Bennett, Mrs. John Northwood Route 1	Moravian Falls
Barry, Mrs. William Francis, Jr. 1022 Gloria Ave.	Durham	Bennett, Mrs. Paul Clifford, Jr. 109 S. Andrews	Goldsboro
Bartels, Mrs. Kenneth Garber 312 Regal	Hendersonville	Bensen, Mrs. Vladimir Basil Blue Ridge Road	Raleigh
Bartlett, Mrs. Stephen Russell, Jr. 208 N. Longmeadow Rr.	Greenville	Benson, Mrs. John Fisher 710 Gatewood	High Point
Bates, Mrs. Harold Bascom 1007 Sherwood Dr.	Burlington	Benson, Mrs. Norman Oliver 203 E. 19th St.	Lumberton
Batten, Mrs. Hubert Elmore 301 Fairfield Rd.	Fayetteville	Benton, Mrs. George Ruffin, Jr. 207 S. Pineview Ave.	Goldsboro
Bauer, Mrs. Harold Alfred Box 338	Wrightsville Beach	Berkeley, Mrs. Scott Bruce, Jr. 1108 Evergreen Ave.	Goldsboro
Baynes, Mrs. Ralph H.	Hurdle Mills	Berkeley, Mrs. William Thomas, Jr. 1870 Queens Rd., W.	Charlotte
Beale, Mrs. Seth McPherson Box 588	Elkin	Berry, Mrs. Francis Xavier 1208 Colonial Ave.	Greensboro
Beall, Mrs. Lawrence Lincoln 1850 North Elm St.	Greensboro	Berry, Mrs. Roy Venden N. C. Sanatorium	McCain
Beam, Mrs. Hugh Martin 306 S. Lamar St.	Roxboro	Berryhill, Mrs. Walter Reece Box 866, Upper Laurel Hill	Chapel Hill
Bear, Mrs. Sigmond Aaron 1415 S. Live Oak Parkway	Wilmington	Bertling, Mrs. Marion Henry 2312 Princess Ann St.	Greensboro
Beavers, Mrs. Charles Lee 1110 Sunset Dr.	Greensboro	Best, Mrs. Deleon Edward 1504 E. Mulberry St.	Goldsboro
Beavers, Mrs. James Wallace 2206 W. Market St.	Greensboro	Best, Mrs. Glenn	Clinton
Beavers, Mrs. William Olive Route 1	McLeansville	Best, Mrs. William Ross 1510 Sherwood Dr.	Burlington
Beck, Mrs. J. Montgomery Route 7	Burlington	Bethea, Mrs. William Thad	Fair Bluff
Beddingfield, Mrs. Edgar Theodore, Jr.	Stantonsburg	Bethel, Mrs. Millard B. 303 Weaver Rd.	Chapel Hill
Belcher, Mrs. Cecil Cullen 28 Hilltop	Asheville	Bethune, Mrs. William M. 1088 Nichols Dr.	Raleigh
Belk, Mrs. George Washington 403 W. 6th Ave.	Gastonia	Betts, Mrs. Wilmer Conrad 3615 Alleghany	Raleigh
Bell, Mrs. George Erick, Sr. 1505 W. Nash St.	Wilson	Biggs, Mrs. John Irvin 2201 Elm St.	Lumberton
Bell, Mrs. Ira Eugene 508 6th St., N. W.	Hickory	Billings, Mrs. Gilbert M. 122 Powe St.	Morganton
Bell, Mrs. Orville Earl 829 Sycamore St.	Rocky Mount	Bingham, Mrs. Robert Knox 105 Hardin St.	Boone
Bell, Mrs. Spencer Alexander Box 33	Hamptonville	Bingham, Mrs. W. L. Long Street	Lexington
Bell, Mrs. William Harrison, Jr. 1601 Lucerne Way	New Bern	Bird, Mrs. Ignacio 207 Homewood Dr.	Greensboro
Bellamy, Mrs. Robert Hartlee Greenway Ave.	Wilmington	Bishop, Mrs. John M., Jr. N-6 Raleigh Apts.	Raleigh
Benbow, Mrs. Edgar Vernon 1411 Reynolda Rd.	Winston-Salem	Bitting, Mrs. Numa Duncan 34 Oak Dr.	Durham
Benbow, Mrs. Edward Perry, Jr. 3809 Friendly Road	Greensboro	Bittinger, Mrs. Charles Lewis 734 Pinewood Circle	Mooresville
Bender, Mrs. John Joseph	Red Springs	Bittinger, Mrs. Samuel Moffett Blue Ridge Rd.	Black Mountain
Bender, Mrs. John Robert 1166 S. Hawthorne Rd.	Winston-Salem	Bivens, Mrs. Edward Shirley 601 East St.	Albemarle

Bizzell, Mrs. James W. Overbrook Drive	Goldsboro	Boone, Mrs. John W., Jr. 401 Hamilton St.	Roanoke Rapids
Bizzell, Mrs. Marcus Edward 500 E. Walnut St.	Goldsboro	Boone, Mrs. William Waldo 1001 Gloria Ave.	Durham
Black, Mrs. George William 1566 Queens Rd., W.	Charlotte	Borden, Mrs. Richard Winstead 1600 E. Elm St.	Goldsboro
Black, Mrs. John Riley, Jr. 212 Jefferson St.	Whiteville	Boren, Mrs. Richard Benjamin III 813 N. Bridge St.	Elkin
Black, Mrs. Kyle Emerson Acorn Lane	Salisbury	Bos, Mrs. John Fremont 1574 Clayton Dr.	Charlotte
Blackmon, Mrs. Bruce Bernard	Buie's Creek	Bost, Mrs. Thomas Creasy 1616 Queens Rd., W.	Charlotte
Blackwelder, Mrs. Verne Hamilton 323 S. Mulberry St.	Lenoir	Bourgeois, Mrs. Gavardin Michael 1017 Norwood Ave.	Durham
Blair, Mrs. Andrew B. 834 Hempstead Place	Charlotte	Bowen, Mrs. Edwyn Taylor, Jr. 32-E College Village	Winston-Salem
Blair, Mrs. George Walker, Jr. 460 Parkview Dr.	Burlington	Bower, Mrs. Joseph Shelton 1100 N. Queens St.	Kinston
Blair, Mrs. James Samuel 1116 Cumberland Ave.	Gastonia	Bowles, Mrs. Francis Norman 1400 Shepherd St.	Durham
Blair, Mrs. Mott Parks	Marshville	Bowling, Mrs. Richard Franklin 732 W. Marion	Shelby
Blake, Mrs. Damon 645 Kingsbury Circle	Winston-Salem	Bowman, Mrs. Earl L. 1101 N. Walnut St.	Lumberton
Blanchard, Mrs. George Caswell 1701 Brandon Rd.	Charlotte	Boyce, Mrs. Oren Douglas Boyceleyn Rd	Gastonia
Blanchard, Mrs. Irvin T. 1409 Riverside Ave.	Elizabeth City	Boyce, Mrs. William Henry 939 N. Stratford Rd.	Winston-Salem
Bland, Mrs. Delmar Earl 289 Canterbury Trail	Winston-Salem	Boyd, Mrs. Basil Manley, Jr. 1816 Maryland Ave.	Charlotte
Bland, Mrs. William Herbert 401 West	Cary	Boyes, Mrs. James Gordon, Jr. 104 Forest Hills Dr.	Wilmington
Block, Mrs. Milton Edgar 522 S. State St.	Lexington	Boyette, Mrs. Ben Robert, Jr. 1508 E. Palm St.	Goldsboro
Blount, Mrs. Frederick Alexander 2540 Forest Drive	Winston-Salem	Bradford, Mrs. George Edwin 4444 Roslyn Rd.	Winston-Salem
Blount, Mrs. John Myers 1650 Eastwood Drive	Kannapolis	Bradford, Mrs. Wallace Brown 256 Hempstead Pl.	Charlotte
Blowe, Mrs. Ralph Boyd, Sr. 800 Washington Ave.	Weldon	Bradford, Mrs. Williamson Ziegler 310 Colville Rd.	Charlotte
Blue, Mrs. John Frederick 522 Brinn Drive	Sanford	Bradish, Mrs. Robert F. 1712 Raeford Rd.	Fayetteville
Boatwright, Mrs. Robert Stuart	Hazelwood	Bradley, Mrs. John David 313 Vanderbilt Rd.	Asheville
Boggs, Mrs. Lawrence Kennedy 2208 Wellesley Ave.	Charlotte	Bradshaw, Mrs. Howard Holt 2837 Reynolds Rd.	Winston-Salem
Bolin, Mrs. Grover Cleveland, Jr. Crescent Drive	Smithfield	Bradsher, Mrs. Arthur Brown 421 Carolina Circle	Durham
Bolin, Mrs. Lewis Bryant 811 Rockford St.	Mt. Airy	Bradsher, Mrs. James Donald Box 168	Roxboro
Bolon, Mrs. Charles Gordon 4733 Woodlark	Charlotte	Brady, Mrs. Charles Eldon Carthage Rd.	Robbins
Bolt, Mrs. Conway Anderson Box 368	Marshville	Brady, Mrs. Walter Morris	Morehead City
Bolus, Mrs. Michael 2220 Wheeler Rd.	Raleigh	Branaman, Mrs. Guy Hewitt, Jr. 915 Williamson Dr.	Raleigh
Bond, Mrs. Edward Griffith 117 Pembroke Circle	Edenton	Brandon, Mrs. Henry Allen	Yadkinville
Bond, Mrs. John Lawrence	Wilkesboro	Brannon, Mrs. Loyd C. Station B	Raleigh
Bond, Mrs. John Pennington 1806 Fairfield Dr.	Gastonia	Brantley, Mrs. Coleman 1803 Wright Ave.	Greensboro
Bonner, Mrs. John Bryan Havens 1100 Riverside Ave.	Elizabeth City	Brantley, Mrs. Julian Chisolm, Jr. 1507 Lafayette Ave.	Rocky Mount
Bonner, Mrs. Merle Dumont 203 Kimberly Dr.	Greensboro	Brashear, Mrs. Ralph	Wendell

Bream, Mrs. Charles Anthony	
Button Road	Chapel Hill
Breeden, Mrs. William Henry	
1524 Morganton Rd.	Fayetteville
Brenizer, Mrs. Addison Gorgas, Jr.	
1301 Providence Rd.	Charlotte
Bressler, Mrs. Bernard	
2700 Circle Dr.	Durham
Brewer, Mrs. James Street	Roseboro
Brian, Mrs. Earl Winfrey	
2111 White Oak Rd.	Raleigh
Brice, Mrs. George Wilson, Jr.	
3961 Arbor Way	Charlotte
Bridger, Mrs. Dewey Herbert	Bladenboro
Bridges, Mrs. Dwight Thomas	Lattimore
Briggs, Mrs. Henry Harrison, Jr.	
323 Vanderbilt Rd.	Asheville
Brigman, Mrs. Paul Hamer	
811 Country Club Dr.	High Point
Brinkhous, Mrs. Kenneth Merle	
524 Dogwood Ave.	Chapel Hill
Brinn, Mrs. Thomas Preston	
106 Front St.	Hertford
Britt, Mrs. Benjamin E.	
1009 Stancil Dr.	Raleigh
Britt, Mrs. Tilman Carlisle, Jr.	
130 Rawley Ave.	Mt. Airy
Britt, Mrs. Walter S.	
Veterans Hospital	Fayetteville
Brittain, Mrs. Lowell Ellis	
1900 Cloister Dr.	Charlotte
Brockmann, Mrs. Harry Lyndon	
912 Fairway Dr.	High Point
Bronnenberg, Mrs. Neel	
421 5th St., N. W.	Hickory
Brooks, Mrs. Ernest Bruce	
2853 Bitting Rd.	Winston-Salem
Brooks, Mrs. Frederick Philips	
Greenville Blvd.	Greenville
Brooks, Mrs. Martin Luther	
Box 141	Pembroke
Brooks, Mrs. Ralph Elbert	
1303 Rainey St.	Burlington
Brooks, Mrs. William Lester, Jr.	
2110 Queens Rd., E.	Charlotte
Brosnan, Mrs. Dennis William III	
56 Sheridan Road	Asheville
Broughton, Mrs. Arthur Calvin, Jr.	
3008 Eton Rd.	Raleigh
Broun, Mrs. Matthew Singleton	
606 Roanoke Ave.	Roanoke Rapids
Brouse, Mrs. Ivan Edwin	
Box 1198	Wilmington
Brown, Mrs. Alan Reid	Waynesville
Brown, Mrs. Charles William	
227 Fenton Place	Charlotte
Brown, Mrs. Frank Reid	
1103 Country Club Dr.	Greensboro
Brown, Mrs. George Wallace, Jr.	Waynesville
Brown, Mrs. Gerald Joseph	Westfield
Brown, Mrs. Ivan W., Jr.	
1709 Vista Dr.	Durham
Brown, Mrs. James Arthur	Cleveland
Brown, Mrs. James Walter, Jr.	
33 Grandview Dr.	Concord
Brown, Mrs. Kermit English	
Chunns Cove Rd.	Asheville
Brown, Mrs. Landis G.	Southport
Browne, Mrs. W. A.	
Route 3, Box 84-B	New Bern
Bruce, Mrs. James Crawford	
2902 Shamrock Dr.	Greensboro
Brunson, Mrs. Edward Porcher	
804 Pee Dee Ave.	Albemarle
Bruton, Mrs. Charles Wilson	Troy
Bryan, Mrs. Thomas R., Jr.	
Finley Park	North Wilkesboro
Buchbinder, Mrs. Jacob H.	
2918 Cliffadle Rd.	Fayetteville
Buffaloe, Mrs. William Joseph	
2028 Fairview Road	Raleigh
Bugg, Mrs. Charles Paulett	
320 W. Drewry Lane	Raleigh
Bugg, Mrs. Everett I., Jr.	
1544 Hermitage Ct.	Durham
Buie, Mrs. Roderick Mark, Sr.	
119 Kensington Rd.	Greensboro
Bullard, Mrs. George Minson	
Forest Lake	Mebane
Bullard, Mrs. Hoke Vogler	
1502 Grove St.	Wilson
Bullock, Mrs. Duncan Douglas, Sr.	Rowland
Bulluck, Mrs. Ernest S.	
519 Market St.	Wilmington
Bumgarner, Mrs. John Reed	
2101 Mimosa Dr.	Greensboro
Bunce, Mrs. Paul Leslie	
Route 3	Chapel Hill
Bundy, Mrs. James Bizzell	
2631 Mirror Lake Dr.	Fayetteville
Bundy, Mrs. William Lumsden	
Finley Park	North Wilkesboro
Bunn, Mrs. David Glenn	
Maple St.	Whiteville
Bunn, Mrs. Richard Wilmot	
411 Plymouth Ave.	Winston-Salem
Burleson, Mrs. Robert Joe	
36 Elk Mountain Scenic Hwy.	Asheville
Burnett, Mrs. Thomas J. M.	
4756 Stafford Circle	Charlotte
Burns, Mrs. Stanley Sherman, Jr.	
2312 Pembroke Ave.	Charlotte
Burwell, Mrs. John Cole, Jr.	
110 Homewood Dr.	Greensboro
Busby, Mrs. George Francis	
Confederate Ave.	Salisbury
Busby, Mrs. Julian	
401 Idlewood Dr.	Kannapolis
Busby, Mrs. Trent	
530 Confederate Ave.	Salisbury
Busse, Mrs. Ewald W.	
1132 Woodburn Rd.	Durham
Butler, Mrs. Carey	
2605 Mirror Lake Dr.	Fayetteville

Butler, Mrs. Radford Norman 810 Clovelly Rd.	Winston-Salem	Carter, Mrs. Needham Battle 226 Timberlane Road	Rocky Mount
Butler, Mrs. Raymond Kenneth	Waynesville	Carter, Mrs. Numa Richardson, Jr. 435 Leander St.	Shelby
Byerly, Mrs. Frederick Lee 2000 Robin Hood Rd.	Winston-Salem	Carver, Mrs. Gordon Malone, Jr. 2214 Cranford Rd.	Durham
Byerly, Mrs. James Hampton 620 Carr St.	Sanford	Casstevens, Mrs. John Claude 130 Pine Valley Cl.	Winston-Salem
Byerly, Mrs. Wesley Grimes, Jr. 362 8th St., N. W.	Hickory	Cates, Mrs. Banks Raleigh, Jr. 2833 Sunset Dr.	Charlotte
Byrd, Mrs. Charles William 409 S. Orange Ave.	Dunn	Caughran, Mrs. John Hamilton 4400 Halstead Dr.	Charlotte
Byrd, Mrs. William Carey Broughton Hospital	Morganton	Causey, Mrs. Andrew Jackson 210 Valley Stream Rd.	Statesville
Byrnes, Mrs. Thomas Henderson 919 Mt. Vernon Ave.	Charlotte	Caveness, Mrs. Zebulon Marvin 1804 Hillsboro St.	Raleigh
Byrum, Mrs. Clifford Conwell 2616 Wells Ave.	Raleigh	Caviness, Mrs. Verne Strudwick 913 Vance St.	Raleigh
Cain, Mrs. Frank Coral, Jr. 1519 Pinola Ave.	Gastonia	Cayer, Mrs. David 2754 Robin Hood Rd.	Winston-Salem
Caldwell, Mrs. Eston Robert, Jr. 116 N. Race St.	Statesville	Cecil, Mrs. Richard Colbert 2314 Gunston Court	Fayetteville
Caldwell, Mrs. Jesse Burgoyne 1307 Park Lane	Gastonia	Cekada, Mrs. Emil Bogomir 915 Green St.	Durham
Caldwell, Mrs. Robert M. 227 Grace	Mt. Airy	Cernugel, Mrs. Albert Peter	Chadbourn
Callaway, Mrs. Jasper Lamar 828 Anderson St.	Durham	Chambers, Mrs. Ralph M. 2314 Mirror Lake Dr.	Fayetteville
Callison, Mrs. William Joseph 10 Blackwood Rd.	Asheville	Chambers, Mrs. Robert Edward 313 Ruby Lane	Gastonia
Camblos, Mrs. Joshua Fry Bullitt 17 Forest Rd.	Asheville	Chambers, Mrs. R. T. 400 Randolph St.	Thomasville
Cameron, Mrs. George Franklin 307 Westview Drive	Fayetteville	Chamblee, Mrs. D. V.	Broadway
Cameron, Mrs. Joseph Harold 1217 Crescent Ave.	Gastonia	Chandler, Mrs. Edgar Ted 1029-16th Ave. Circle N.W.	Hickory
Camp, Mrs. Edward Hays	Waynesville	Chandler, Mrs. Weldon Porter Box 458	Weaverville
Campbell, Mrs. Frank Highsmith 1400 Lakeview Dr.	Fayetteville	Chapin, Mrs. John Harmon	Benson
Campbell, Mrs. James Melvin 2115 Yost Ave.	Salisbury	Chapman, Mrs. Charles Granger 6134 Deveron Dr.	Charlotte
Campbell, Mrs. Joseph Lester 306 Kincaid Ave.	Wilson	Chapman, Mrs. Edwin James 264 Lakeshore Dr.	Asheville
Campbell, Mrs. Paul Curtis, Jr. 2215 Meadow Wood Rd.	Fayetteville	Chapman, Mrs. Jesse Pugh, Jr. 276 Kenilworth Rd.	Asheville
Cannon, Mrs. Eugene Bolivia Lexington Road	Asheboro	Chasson, Mrs. Albert Leon 107 Montgomery St.	Raleigh
Carpenter, Mrs. Harry Martin 743 Austin Lane	Winston-Salem	Chastain, Mrs. Loren Lee	Cherryville
Carr, Mrs. Chalmers Rankin 1715 Queens Rd.	Charlotte	Cheek, Mrs. John Merritt, Jr. 1025 Sycamore St.	Durham
Carr, Mrs. Edward Sleight 3210 Forsyth Dr.	Greensboro	Cheek, Mrs. Kenneth Maurice 402 E. Farriss	High Point
Carr, Mrs. Henry J. Jr. Herring Street	Clinton	Chidester, Mrs. Augustus Benjamin Haywood Forest	Hendersonville
Carrington, Mrs. George Lunsford 139 Piedmont Way	Burlington	Chiles, Mrs. Noah Hampton Heathcliffe Road	High Point
Carroll, Mrs. Charles Fisher Beverly Drive	Concord	Chrysler, Mrs. Charles Otis 110 Lanier Ave.	Charlotte
Carroll, Mrs. Fountain Williams	Hookerton	Citron, Mrs. David Sanford 2100 Cumberland Ave.	Charlotte
Carroll, Mrs. Francis Murray	Chadbourn	Clark, Mrs. Badie Travis 607 Raleigh Road	Wilson
Carter, Mrs. Francis Bayard 2111 Myrtle Dr.	Durham	Clark, Mrs. DeWitt Duncan, Box 725	Clarkton

Clark, Mrs. Douglas Hendon 207 W. 26th St.	Lumberton	Cole, Mrs. Walter Francis 201 E. Avondale	Greensboro
Clark, Mrs. Harold Stevens 9 Lakewood Dr.	Asheville	Coleman, Mrs. Lester Livingston 2311 1st Ave. Pl.	Hickory
Clark, Mrs. Henry Toole, Jr. King's Mill Road	Chapel Hill	Coley, Mrs. Elwood Brogden 602 W. 31st St.	Lumberton
Clark, Mrs. Milton Stephen 1808 E. Walnut	Goldsboro	Collawn, Mrs. Thomas Herbert 4237 Woodlark Lane	Charlotte
Clark, Mrs. Patrick Francis 208 Cumberland	Asheville	Collett, Mrs. James Rountree 312 W. Union St.	Morganton
Clayton, Mrs. Eugene Cook 17 St. Charles Pl.	Asheville	Collins, Mrs. David Leonard 124 Rutledge Ave.	Concord
Cleaver, Mrs. H. DeHaven 713 Cornwallis Rd.	Durham	Combs, Mrs. Fielding 438 Carolina Circle	Winston-Salem
Cleek, Mrs. Thornton Ritenour 608 Kivett St.	Asheboro	Combs, Mrs. Joseph John 2125 White Oak Rd.	Raleigh
Clement, Mrs. James Edwin 112 Warren St.	Greenville	Compton, Mrs. John Wallace 608 S. Oleander Ave.	Goldsboro
Cline, Mrs. Walter Allen 603 Confederate Ave.	Salisbury	Cook, Mrs. Henry Lilly, Jr. Irving Park Manor	Greensboro
Clinton, Mrs. Roland Smith 1305 Fairfield Dr.	Gastonia	Cook, Mrs. Joseph Lindsay 202 Nutbush Dr. E.	Greensboro
Clippinger, Mrs. Frank W. 1302 Oakland Ave.	Durham	Cook, Mrs. William Eugene 115 S. Churchill Dr.	Fayetteville
Cloninger, Mrs. Charles Edgar	Conover	Cooke, Mrs. Hershall Marcus Route 1, Box 227	Boone
Cloninger, Mrs. Giles Lathern 301 Dogwood Lane	Hamlet	Cooke, Mrs. Quinton Edwin 212 E. High St.	Murfreesboro
Cloninger, Mrs. Kenneth Lee Westlake Hills	Newton	Cooke, Mrs. Ralph M. East Main Street	Elkin
Clutts, Mrs. George Robert 227 N. Park Dr.	Greensboro	Cooley, Mrs. Samuel Studdiford 221 New Bern Ave.	Black Mountain
Cobey, Mrs. William Gray 3401 Gresham Place	Charlotte	Cooper, Mrs. Albert Derwin 1006 Dacian Ave.	Durham
Cochcroft, Mrs. Roy Leicester 217 W. Washington Ave.	Bessemer City	Cooper, Mrs. George Marion 411 Marlowe Road	Raleigh
Cochran, Mrs. James R. 730 Richmond	Laurinburg	Coppedge, Mrs. Thomas Oliver, Jr. 4067 Abingdon Rd.	Charlotte
Cochran, Mrs. John Leach Parkview Street	Asheboro	Coppridge, Mrs. James Alston Rugby Road	Durham
Cochrane, Mrs. Fred Richard, Jr. 1614 Maryland Ave.	Charlotte	Coppridge, Mrs. William Maurice 600 N. Gregson St.	Durham
Codington, Mrs. John Bonnell 422 Forest Hill Dr.	Wilmington	Corbett, Mrs. Clarence Lee W. Cumberland St.	Dunn
Codnere, Mrs. John T.	Skyland	Corbett, Mrs. James Patrick 30 Water	Swansboro
Coffee, Mrs. Archie Thomas, Jr. 3319 Sharon Rd.	Charlotte	Corbin, Mrs. George Wesley, Jr.	Rolesville
Coffey, Mrs. James Cecil 8 Pine Tree Rd.	Salisbury	Cordell, Mrs. Alfred Robert 963 Kenleigh Circle	Winston-Salem
Coffman, Mrs. Selby Longmeadow Rd.	Greenville	Cornwell, Mrs. Abner Milton 825 S. Aspen St.	Lincolnton
Cogdell, Mrs. David Melvin 2827 Skye Dr.	Fayetteville	Corpening, Mrs. Albert	Youngsville
Cohen, Mrs. Sanford Irwin 1100 Woodburn Rd.	Durham	Corpening, Mrs. Joseph Durham 228 Rutherford St.	Salisbury
Coker, Mrs. Robert Ervin, Jr. 810 Christopher Rd.	Chapel Hill	Corpening, Mrs. Oscar J.	Granite Falls
Coker, Mrs. Tom Phillip 431 Lawndale Drive	Winston-Salem	Corpening, Mrs. William Nye	Granite Falls
Cole, Mrs. Herman Alfonse Box 213	Clayton	Correll, Mrs. Earl Eugene 1603 Eastwood Drive	Kannapolis
Cole, Mrs. Robert Hickman 1537 Coventry Rd.	Charlotte	Cosgrove, Mrs. Kenneth Edward 306 Laurel Dr.	Hendersonville
		Costner, Mrs. Walter Vance 501 N. Cedar St.	Lincolnton

Coughlin, Mrs. Joyce Desmond 150 Cherokee Rd.	Asheville	Cross, Mrs. Robert Vandervoort 920 Fairway Dr.	High Point
Covington, Mrs. Alpheus M. 406 Ann St.	Rockingham	Crouch, Mrs. Auley McRae, Sr. 520 Dock St.	Wilmington
Covington, Mrs. Furman Payne Erwin Heights	Thomasville	Crouch, Mrs. Auley McRae, Jr. 1419 S. Live Oak Parkway	Wilmington
Covington, Mrs. James Madison, Sr. 505 Camden Road	Wadesboro	Crouch, Mrs. Robert Perry 20 Rollingwood Rd.	Asheville
Covington, Mrs. James Madison, Jr. 507 Morven Road	Wadesboro	Crouch, Mrs. Walter Lee 1211 S. Live Oak Parkway	Wilmington
Covington, Mrs. John Malloy Clayton 324 Jackson St.	Roanoke Rapids	Crow, Mrs. Samuel Leslie 12 N. Kensington Rd.	Asheville
Covington, Mrs. Martin Cade 2107 Woodland Ave.	Sanford	Crowell, Mrs. James Allen 1529 E. Morehead St.	Charlotte
Cox, Mrs. Samuel Clements 8 E. Bayshore Blvd.	Jacksonville	Crowell, Mrs. Lester Avant, Jr. 413 S. Aspen St.	Lincolnton
Cox, Mrs. William Foscue 2722 Reynolds Rd.	Winston-Salem	Crumpler, Mrs. James Fulton 1409 West Haven Blvd.	Rocky Mount
Cozart, Mrs. Wiley Holt Box 327	Fuquay Springs	Crumpler, Mrs. Paul 401 Lafayette St.	Clinton
Cozart, Mrs. Wiley S. 333 S. Main	Fuquay Springs	Crumpler, Mrs. Warren Harding N. Johnson St.	Mt. Olive
Craddock, Mrs. John Goodwin 1501 Anderson St.	Wilson	Crutchfield, Mrs. Andrew Jackson 300 Plymouth Ave.	Winston-Salem
Craig, Mrs. Robert Lawrence 382 Montford Ave.	Asheville	Cubberley, Mrs. Charles Lamb, Jr. 505 Lafayette Dr.	Wilson
Cramblett, Mrs. Henry S. Wake Forest Faculty Apts.	Winston-Salem	Culbreth, Mrs. George Gordon 2228 Queens Rd., E.	Charlotte
Crandell, Mrs. Daniel LeRoy 755 Pine Valley Rd.	Winston-Salem	Currie, Mrs. Daniel Smith, Jr. 302 Churchill Dr.	Fayetteville
Crane, Mrs. George Levering 2028 Pershing St.	Durham	Curry, Mrs. Clayton Smith 2701 Bucknell Ave.	Charlotte
Crane, Mrs. George William, Jr. 2618 Augusta Dr.	Durham	Cushman, Mrs. Robert G. 5th Ave. Pl., N. E.	Hickory
Cranz, Mrs. Oscar William 1304 Walker Dr.	Kinston	Cutchin, Mrs. Joseph Henry, Sr. Box 202	Whitakers
Craven, Mrs. Frederick Thorns 29 Ravine Ave.	Concord	Cutchin, Mrs. Joseph Henry, Jr.	Sherrill's Ford
Crawford, Mrs. Robert Orr, Jr. P. O. Box 483	Claremont	Cutri, Mrs. Joseph John Graylyn Court	Winston-Salem
Crawford, Mrs. William Jennings 1500 E. Ash St.	Goldsboro	Dale, Mrs. Frederick Payne 503 Rhodes Ave.	Kinston
Creadick, Mrs. Robert Nowell 1200 Anderson St.	Durham	Dalton, Mrs. Bennie Booker 402 W. Kivett St.	Asheboro
Creech, Mrs. Lemuel Underwood 220 Edgedale Dr.	High Point	Dalton, Mrs. Horace Milton 1705 Cambridge Dr.	Kinston
Creed, Mrs. George Otis Johns Rd.	Laurinburg	Dameron, Mrs. Thomas Barker, Jr. 414 Scotland St.	Raleigh
Crisp, Mrs. Sellers Mark 1201 E. 5th St.	Greenville	Daniel, Mrs. Crowell Turner, Jr. 330 Pinecrest Dr.	Fayetteville
Crissman, Mrs. Clinton S. Chapel Hill Road	Graham	Daniel, Mrs. Thomas Brantley 3231 Sussex Rd.	Raleigh
Cronland, Mrs. Murphy Allen Route 3	Lincolnton	Daniel, Mrs. Thomas Manning 524 S. Fourth St.	Smithfield
Croom, Mrs. Arthur Bascom 1102 Greenway Dr.	High Point	Daniel, Mrs. Walter Eugene 2115 Roswell Ave.	Charlotte
Croom, Mrs. Robert DeVane, Jr.	Maxton	Daniels, Mrs. Ralph L. 307 E. Front St.	New Bern
Crosby, Mrs. James Foster 5019 Park Road	Charlotte	Daniels, Mrs. Robert Edward 23 Vance Crescent	West Asheville
Cross, Mrs. Almon Rufus 414 Hillcrest Dr.	High Point	Daughrtridge, Mrs. Griffin Caswell 526 Marigold St.	Rocky Mount

Davant, Mrs. Charles		
Chestnut Drive	Blowing Rock	
Davenport, Mrs. Carlton Alderman		
207 Front St.	Hertford	
Davenport, Mrs. Clifton		
309 Third Ave.	Raeford	
Davidson, Mrs. Alan		
Old Cherry Point Rd.	New Bern	
Davidson, Mrs. James Hubert		
2200 Sprunt St.	Durham	
Davis, Mrs. Courtland Harwell, Jr.		
921 Goodwood Rd.	Winston-Salem	
Davis, Mrs. Daniel Whitaker		
603 Camden Rd.	Wadesboro	
Davis, Mrs. David A.		
Kings Mill Road	Chapel Hill	
Davis, Mrs. Dwight		
2624 Wade Ave.	Raleigh	
Davis, Mrs. Jack Beason	Waynesville	
Davis, Mrs. James Evans		
7 Beverly Drive	Durham	
Davis, Mrs. James Matheson		
515 Camden Rd.	Wadesboro	
Davis, Mrs. Jefferson		
2712 Thomas Trail	Gastonia	
Davis, Mrs. John Preston		
329 Bambury Rd.	Winston-Salem	
Davis, Mrs. Junius Weeks, Jr.		
Trent Shores	New Bern	
Davis, Mrs. Philip Bibb		
807 Florham Ave.	High Point	
Davis, Mrs. Richard Boyd		
122 S. Greene St.	Greensboro	
Davis, Mrs. Rufus Jackson		
Lakewood	Cramerton	
Davis, Mrs. Wayne Edward		
321 Avalon Road	Winston-Salem	
Davis, Mrs. William Alexander, Jr.		
Box 146	Cornelius	
Davis, Mrs. William Hersey, Jr.		
723 N. Stratford Rd.	Winston-Salem	
Dawson, Mrs. James Nelson	Acme-Delco	
Dayton, Mrs. John Thomas		
2427 Wensley Dr.	Charlotte	
Deaton, Mrs. Paul McNeely		
581 Greenway Dr.	Statesville	
Deaton, Mrs. Paul P.	Valdese	
Deaton, Mrs. William Ralph, Jr.		
101 Elgin Place	Greensboro	
DeCamp, Mrs. Allen Ledyard		
1830 Cassamia Place	Charlotte	
Deeds, Mrs. Charles Ross		
Haywood Road	Hendersonville	
Dees, Mrs. Ralph Erastus		
1505 Fairmont Street	Greensboro	
Denny, Mrs. Floyd W.		
424 Whithead Circle	Chapel Hill	
Denton, Mrs. Aulsey L., Jr.		
1905 Craig St.	Raleigh	
Dick, Mrs. Frederick William		
354 Bost St.	Statesville	
Dick, Mrs. Macdonald		
3005 Norwich, Hope Valley	Durham	
Dickerson, Mrs. Andrew Jackson	Waynesville	
Dickie, Mrs. James William		
3003 Wayne Dr.	Wilmington	
Dickson, Mrs. Brice Templeton, Jr.		
1436 Fern Forest Drive	Gastonia	
Dillard, Mrs. Sam Booker		
1309 Biltmore Dr.	Charlotte	
Di Rienzo, Mrs. Vincent L.		
516 E. Washington St.	Rockingham	
Disosway, Dr. Lula M.		
1621 Spencer Ave.	New Bern	
Dixon, Mrs. George Grady		
503 Snow Hill St.	Ayden	
Dixon, Mrs. Philip Lafayette, Jr.		
1 Bayshore Blvd., E.	Jacksonville	
Doerr, Mrs. J. C.		
2614 Grant Ave.	Raleigh	
Doffermeyre, Mrs. Luther Randolph		
1004 W. Harnett St.	Dunn	
Donald, Mrs. William Blanton, Jr.		
603 Rockspring Rd.	High Point	
Donnelly, Mrs. James F.		
2624 Albemarle	Raleigh	
Donner, Mrs. Paul Gartrell		
2910 Abingdon Rd.	Charlotte	
Dorenbusch, Mrs. Alfred A.		
2734 Hampton Ave.	Charlotte	
Dorman, Mrs. Bruce Hugh		
Rt. 3, Box 163	Wilmington	
Dorsett, Mrs. John Dewey, Jr.		
1130 Andover Rd.	Charlotte	
Dougherty, Mrs. Raymond Joseph, Jr.		
Knollwood	Southern Pines	
Douglas, Mrs. John Munroe		
2016 Ferncliff Rd.	Charlotte	
Douglass, Mrs. Donald Perry		
809 E. Farris Ave.	High Point	
Downs, Mrs. Posey Edgar, Jr.		
101 Placid Place	Charlotte	
Doyle, Mrs. Owen William		
906 Dover Rd.	Greensboro	
Doyle, Mrs. Raymond Thomas		
900 Standfield Dr.	Charlotte	
Drake, Mrs. Benjamin Michael		
1310 Jackson Rd.	Gastonia	
Drake, Mrs. David Ewing		
301 E. Park Drive	Fayetteville	
Drummond, Mrs. Charles Max		
Faculty Apartment 7-C	Winston-Salem	
Drummond, Mrs. Charles Stitt		
2928 Windsor Rd.	Winston-Salem	
Dudley, Mrs. Council C., Jr.	Jonesville	
Duffy, Mrs. Charles		
1506 Lucerne Way	New Bern	
Dulin, Mrs. Thomas Leroy		
1001 Andover Rd.	Charlotte	
Dunlap, Mrs. Jack		
6th Street	Lumberton	
Dunning, Mrs. Everett Jackson		
2310 Sharon Lane	Charlotte	

- Durham, Mrs. Carey Winston
 209 W. Ridgeway Dr. Greensboro
 Durham, Mrs. Thomas Garrison
 502 Crescent Hill Kings Mountain
 Dyer, Mrs. David Patterson
 Rt. 1, Box 18 Waynesville
- Eagle, Mrs. James Carr
 418 Carolina Ave. Spencer
 Eagle, Mrs. Watt Weems
 804 Anderson St. Durham
 Early, Mrs. Ira Gordon
 2510 Bitting Rd. Winston-Salem
 Easom, Mrs. Herman Franklin
 508 Mt. Vernon Dr. Wilson
 Eastwood, Mrs. Frederick Thomas
 2708 Lakeview Dr. Raleigh
 Eckbert, Mrs. William Fox
 Southwood, Route 2 Gastonia
 Eckerson, Mrs. Charles Troy
 Eddinger, Mrs. Charles Frederick
 Box 45, Spencer
 Eddins, Mrs. George Edgar, Jr.
 Norwood Rd. Albemarle
 Edgerton, Mrs. Glenn Soulders
 325 Cherokee Place Charlotte
 Edwards, Mrs. Charles Daniel
 Forrest Hills Washington
 Edwards, Mrs. James R. Ayden
 Egerton, Mrs. Courtney David
 2528 York Rd. Raleigh
 Elesha, Mrs. William
 3040 Briarcliffe Rd. Winston-Salem
 Elfmon, Mrs. Samuel Leon
 117 Stedman St. Fayetteville
 Ellington, Mrs. Amzi Jefferson, Jr.
 419 Fountain Place Burlington
 Elliott, Mrs. Avon Hall
 607 Colonial Drive Wilmington
 Elliott, Mrs. Joseph Alexander, Sr.
 2700 Sherwood Ave Charlotte
 Elliott, Mrs. Joseph Alexander, Jr.
 2224 Sanford Lane Charlotte
 Epple, Mrs. Kenneth H.
 1518 Liberty Drive Greensboro
 Erb, Mrs. Norris Scribner
 8 Oak Road Salisbury
 Erdman, Mrs. Lawrence Huntington
 P. O. Box 283 Bridgeton
 Ernst, Mrs. Henry Edwin
 97 Ingleside Dr. Concord
 Ervin, Mrs. John Witherspoon
 Broughton Hospital Morganton
 Erwin, Mrs. Evan Alexander, Jr.
 516 S. Main Laurinburg
 Espey, Mrs. Dan, Jr.
 454 5th St., S.E. Hickory
 Estes, Mrs. Edward Harvey, Jr.
 3542 Hamstead Court Durham
 Etherington, Mrs. John Lawrence
 1703 Evergreen Ave. Goldsboro
- Eubanks, Mrs. William Malcolm, Jr.
 1324 Carolyn Dr. Charlotte
 Evans, Mrs. Otis Druell, Jr.
 816 Parkwood Rd. Shelby
- Fagan, Mrs. Harry, Jr.
 2508 Oxford Rd. Raleigh
 Fail, Mrs. Phillip J.
 Chestnut Drive Blowing Rock
 Faison, Mrs. Elias Sampson
 1825 Providence Rd. Charlotte
 Fales, Mrs. Robert Martin
 153 Renovah Circle Wilmington
 Falls, Mrs. Fred
 855 W. Marion St. Shelby
 Falvo, Mrs. Samuel Catanzaro
 716 Maybank Drive Hendersonville
 Farley, Mrs. William Winfree
 2625 Dover Rd. Raleigh
 Farmer, Mrs. Thomas Wohlsen
 1304 Mason Farm Rd. Chapel Hill
 Farmer, Mrs. William Anderson
 2841 Skye Dr. Fayetteville
 Farmer, Mrs. William Dempsey
 1011 Country Club Dr. Greensboro
 Farmer, Mrs. Woodard Eason
 27 Park Road Asheville
 Faulk, Mrs. James Grady
 1208 E. Franklin Monroe
 Feezor, Mrs. Charles Noel
 6 Pine Tree Rd. Salisbury
 Feldman, Mrs. Leon Henry
 6 N. Kensington Rd. Asheville
 Felton, Mrs. Robert Lee, Jr.
 Box 176 Carthage
 Felts, Mrs. John Harvey, Jr.
 3335 Paddington Lane Winston-Salem
 Fender, Mrs. James Earle Waynesville
 Ferguson, Mrs. George Burton
 3938 Dover Rd., Hope Valley Durham
 Ferrell, Mrs. John Atkinson
 Apt. 8-B, Carolina Hotel Raleigh
 Fesperman, Mrs. Joseph Claude
 Box 517 Stanley
 Feuer, Mrs. Abe Lawrence
 1006 Fairfield Dr. Gastonia
 Fewell, Mrs. Richard Alexander
 508 Fountain Place Burlington
 Ficklin, Mrs. Conway
 730 Princeton Dr. Wilmington
 Field, Mrs. Bob Lewis
 Box 557 Salisbury
 Fields, Mrs. Leonard Earl
 Box 788, Hidden Hills Chapel Hill
 Fike, Mrs. Ralph Llewellyn
 901 Raleigh Rd. Wilson
 Finley, Mrs. Charles Francis
 2323 Morganton Rd. Fayetteville
 Fish, Mrs. Harry Gustav, Jr.
 1116 Long Ave. Rocky Mount
 Fisher, Mrs. George Walton, Jr.
 2612 Edgewater Dr. Fayetteville

Fiske, Mrs. Reginald Earle 248 McCoy Road	Salisbury	Foster, Mrs. Bobby	Mocksville
Fitz, Mrs. Thomas Edmunds 423 10th St. Dr.	Hickory	Foster, Mrs. Clarence B. East Indiana Ave. Ext.	Southern Pines
Fitzgerald, Mrs. Charles Edmund 415 E. Wilson St.	Farmville	Foster, Mrs. John W. 294 W. End Blvd.	Winston-Salem
Fitzgerald, Mrs. John Dean 210 Crestwood Dr.	Roxboro	Foster, Mrs. Malcolm Tennyson 114 Stedman St.	Fayetteville
Fitzgerald, Mrs. John Hill, Jr. 217 Duff St.	Lincolnton	Foushee, Mrs. John Caldwell Jonesboro Heights	Sanford
Fitzgerald, Mrs. Robert Greeson, Jr. 320 S. Lamar St.	Roxboro	Fowler, Mrs. Henry Jackson Box 416	Walnut Cove
Fleetwood, Mrs. Joseph Anderton, Sr.	Conway	Fowler, Mrs. John A. 1212 Woodburn Rd.	Durham
Fleetwood, Mrs. Joseph Anderton, Jr.	Conway	Fox, Mrs. Dennis Bryan McGill Dr.	Albemarle
Fleishman, Mrs. Malcolm 130 Herndon St.	Fayetteville	Fox, Mrs. Norman Albright, Sr. Friendly Rd.	Guilford College
Fleming, Mrs. Frank R.	Yadkinville	Fox, Mrs. Norman Albright, Jr. Friendly Rd.	Guilford College
Fleming, Mrs. Lawrence Edwin 1116 Providence Rd.	Charlotte	Fox, Mrs. Powell Graham 2910 Fairview Road	Raleigh
Fleming, Mrs. Major Ivy 104 S. Franklin St.	Rocky Mount	Fox, Mrs. Powell Graham, Jr. 808 Rosemont Ave.	Raleigh
Fleming, Mrs. Paul A. 140 N. Lord Ashley Rd.	Raleigh	Fox, Mrs. Robert Eugene 1011 E. Main St.	Albemarle
Fleming, Mrs. Ralph Gibson 23 Beverly Dr.	Durham	Fox, Mrs. William Morgan 435 Charlotte Dr.	Fayetteville
Fleming, Mrs. Samuel Wallace Fleming, Mrs. William LeRoy	Elm City	Fraasa, Mrs. Robert Conrad 1226 Tarrington Dr.	Charlotte
Morgan Creek Road	Chapel Hill	Frankl, Mrs. George 923 Arbor Road	Winston-Salem
Flowe, Mrs. Benjamin Hugh 33 Summit Ave.	Concord	Franklin, Mrs. Ernest Washington 1141 Liganore Pl.	Charlotte
Floyd, Mrs. Anderson Gayle N. Thompson St.	Whiteville	Franz, Mrs. Bruce Johnston 51 Sunset Parkway	Asheville
Floyd, Mrs. Hal Stanfield Lake View Rd.	Fairmont	Frazer, Mrs. Joe W., Jr. 2210 Hathaway Dr.	Greensboro
Floyd, Mrs. Walter 2011 Woodrow St.	Durham	Frazier, Mrs. Claude Albee 14 Buena Vista Rd.	Asheville
Floyd, Mrs. William Russel Mt. Pleasant Highway	Concord	Frazier, Mrs. John Wesley, Jr. Pine Tree Rd.	Salisbury
Flythe, Mrs. William Henry 809 Hillcrest Dr.	High Point	Freedman, Mrs. Arthur 1305 Hobbs Road	Greensboro
Foard, Mrs. Fred T., Jr. 701 Beaver Dam Rd.	Raleigh	Freeman, Mrs. Percy Lee 1018 Paramount Circle	Gastonia
Fogleman, Mrs. Ross Lee, Jr. 904 W. Highland Ave.	Kinston	Freeman, Mrs. Roy Oscar Freeman, Mrs. William Harrison	Jefferson
Follo, Mrs. Paige Bill 1709 Efland Dr.	Greensboro	611 Yadkin St.	Albemarle
Fondren, Mrs. Frank 302 Jackson St.	Roanoke Rapids	Freeman, Mrs. William Talmadge 311 Vanderbilt Rd.	Asheville
Forbes, Mrs. Gus Evans Park Circle	Laurinburg	Fritz, Mrs. Jacob Luther 1751 W. Salisbury St.	Asheboro
Ford, Mrs. Charles Phillip Stockton Road	Kinston	Fritz, Mrs. Olin Grady	Walkertown
Ford, Mrs. David Emerson 105 Bridge St.	Washington	Fritz, Mrs. William Abel 636 Third St., N. E.	Hickory
Fordham, Mrs. Christopher C., III Morgan Creek Road	Chapel Hill	Frizelle, Mrs. Mark Twain 507 S. Lee St.	Ayden
Forrest, Mrs. William W. 1001 Montpelier Dr.	Greensboro	Frohbose, Mrs. William Joseph 1524 Beal St.	Rocky Mount
Fortney, Mrs. Austin Powell Box 66	Jamestown	Frye, Mrs. Glenn Raymer 539 N. Center St.	Hickory
Fortune, Mrs. Benjamin Fletcher 906 Cornwallis Dr.	Greensboro	Fulcher, Mrs. Luther	Beaufort

Fuller, Mrs. David H. 2117 Woodland Ave.	Raleigh	Geddie, Mrs. Kenneth Baxter 1121 Rotary Dr.	High Point
Fuller, Mrs. Henry Fleming 1302 Walker Dr.	Kinston	Gee, Mrs. William N., Jr. 1001 S. Madison	Goldsboro
Ferguson, Mrs. Ernest Whitmal	Plymouth	Gentry, Mrs. George Wesley 607 S. Main St.	Roxboro
Gadd, Mrs. Duwayne Douglas Green Dial Cottage	Pinehurst	Gentry, Mrs. George Wesley, Jr. Club Lake Street	Roxboro
Gage, Mrs. Lucius Gaston Sr. 1220 Lexington Ave.	Charlotte	Gentry, Mrs. William Harold N. C. Sanatorium	McCain
Gailey, Mrs. John White, Jr. Country Club Rd.	Morehead City	Georgiade, Mrs. Nicholas G. 2523 Wrightwood Ave.	Durham
Gallant, Mrs. Robert Miller 809 Central Ave.	Charlotte	Germuth, Mrs. Frederick George, Jr. 2100 Sherwood Ave.	Charlotte
Galloway, Mrs. George W. 633 Oak St.	Hamlet	Gibbon, Mrs. James Wilson 720 Bromley Rd.	Charlotte
Galloway, Mrs. James Hervey 200 Shepherd St.	Raleigh	Gibbons, Mrs. Julius Joyce, Jr. 215 Highland Ave.	Lenoir
Galusha, Mrs. Bryant Leroy 6053 Brookhaven Rd.	Charlotte	Gibbs, Mrs. Norfleet M. 209 Johnson St.	New Bern
Gamble, Mrs. John Reeves, Jr. Box 270	Lincolnton	Gibbs, Mrs. Stuart Wynn Armstrong Park Circle	Gastonia
Garber, Mrs. Edgar Clyde, Jr. 1810 Lakeshore Dr.	Fayetteville	Gibson, Mrs. Thomas G., Jr. Main St.	Gibson
Gardner, Mrs. F. Sidney 606 Forest Lake Rd.	Fayetteville	Gill, Mrs. Joseph Armstrong 803 River Rd.	Elizabeth City
Garland, Mrs. Wesley Scott Box 527	Marshville	Gilliam Mrs. Charles F. 15 Fifth Ave.	Thomasville
Garrard, Mrs. Robert Lemley 101 N. Park Dr.	Greensboro	Gilliam, Mrs. James Sylvester, Jr. 607 W. Lexington Ave.	High Point
Garrenton, Mrs. Connell George	Bethel	Gilmore, Mrs. Clyde Manly 108 E. Avondale	Greensboro
Garrett, Mrs. John Bostian	Walkertown	Gilmour, Mrs. Monroe Taylor 734 Granville Rd.	Charlotte
Garrett, Mrs. Norman Hessen, Jr. 3932 Madison Ave.	Greensboro	Glasgow, Mrs. Douglas McKay 2022 Glendale Rd.	Charlotte
Garrison, Mrs. Paul Leslie 1837 Buena Vista	Winston-Salem	Glasson, Mrs. John 615 Swift Ave.	Durham
Garrison, Mrs. Ralph Bernard Cheraw Rd.	Hamlet	Glenn, Mrs. Channing Box 335	Elizabethtown
Garrison, Mrs. Robert Lee 2118 Beverly Dr.	Charlotte	Glenn, Mrs. Henry Franklin, Jr. 319 S. Oakland Ave.	Gastonia
Garvey, Mrs. Fred Kesler 440 Fairfax Dr.	Winston-Salem	Glenn, Mrs. John C., Jr. 200 Hempstead Pl.	Charlotte
Garvey, Mrs. Robert Roby Boone Highway	Blowing Rock	Glenn, Mrs. Richard Reece 2507 Miller Park Cl.	Winston-Salem
Gaskin, Mrs. Ernest Reed 4115 Arborway	Charlotte	Gobble, Mrs. Fleetus Lee, Jr. 905 Hawthorne Rd.	Winston-Salem
Gaskin, Mrs. John Stover, Jr. 903 Avondale Ave.	Albemarle	Gobel, Mrs. William Kenneth	Denton
Gaskin, Mrs. Lewis J. 2503 Greenway Ave.	Raleigh	Gold, Mrs. Ben Miller, Jr. Country Club Dr.	Rocky Mount
Gaskin, Mrs. Lewis Reid 274 N. Fourth St.	Albemarle	Goldner, Mrs. J. Leonard 602 E. Forest Hills Blvd.	Durham
Gaskin, Dr. Madge Baker 265 N. Third St.	Albemarle	Goley, Mrs. Willard Coe 217 N. Main St.	Graham
Gaul, Mrs. John Stuart, Sr. 2119 Norton Rd.	Charlotte	Goodman, Mrs. Benjamin Warren 226 Fifth St., S. E.	Hickory
Gaul, Mrs. John Stuart, Jr. 2010 Sharon Lane	Charlotte	Goodwin, Mrs. Cleon Walton 1107 W. Nash St.	Wilson
Gaul, Mrs. Rufus Wharton 3012 Hampton Ave.	Charlotte	Goodwin, Mrs. Oscar Sexton Raleigh Rd.	Apex
Gay, Mrs. Charles H. 143 Huntley Pl.	Charlotte	Googe, Mrs. James Turner	Sylva

Gore, Mrs. John Pratt 3208 Denise St.	Durham	Grimmett, Mrs. Matthew Hill 107 Country Club Dr.	Concord
Goree, Mrs. John A. 3817 Hillgrand Cr.	Durham	Groat, Mrs. Richard A. 702 Cornwallis Dr.	Greensboro
Goswick, Mrs. Harry Wilson, Jr. 280 Canterbury Trail	Winston-Salem	Groome, Mrs. James Gordon 203 Edgedale Dr.	High Point
Gradis, Mrs. Howard Henry Forest Hill Drive	Greenville	Groseclose, Mrs. James David 202 Shaw St.	Randleman
Grady, Mrs. Franklin McLean Madam Moore's Lane	New Bern	Gross, Mrs. Francis Warren 408 W. Lexington Ave.	High Point
Graham, Mrs. Charles Pattison 123 Forest Hills Dr.	Wilmington	Grove, Mrs. Raymond Fisk 1400 Live Oak Pkwy.	Wilmington
Graham, Mrs. David Eric 3626 Stonehaven Dr.	Charlotte	Groves, Mrs. Robert Burwell, Sr.	Lowell
Graham, Mrs. Walter Raleigh 743 Hempstead Pl.	Charlotte	Groves, Mrs. Robert Burwell, Jr. 2565 Pinewood Drive	Gastonia
Graham, Mrs. William Alexander 2247 Cranford Rd.	Durham	Gulley, Mrs. Marcus Marcellus 1836 Runnymede Rd.	Winston-Salem
Grant, Mrs. Robert Clyde 300 White Pine Dr.	Asheville	Gunn, Mrs. Charles Groshon 972 Kenleigh Circle	Winston-Salem
Gray, Mrs. Cyrus Leighton 912 Rotary Dr.	High Point	Gunter, Mrs. Arthur Rhett 2127 Radcliffe Ave.	Charlotte
Green, Mrs. Harold David 1172 Hawthorne Rd.	Winston-Salem	Gunter, Mrs. June U. 1411 N. Mangum St.	Durham
Green, Mrs. Paul, Jr. 303 Mahaley Ave.	Salisbury	Gwynn, Mrs. Houston Lafayette Box 6	Yanceyville
Green, Mrs. Philip Palmer 435 E. Indiana Ave.	Southern Pines	Haar, Mrs. Frederick Behrend 608 E. 9th St.	Greenville
Greene, Mrs. Joseph Elmo	Marshville	Hadley, Mrs. Herbert Wood 2607 S. Dickinson Ave.	Greenville
Greene, Mrs. Phares Yates 1004 E. Willowbrook Dr.	Burlington	Hagaman, Mrs. John Bartlett, Jr. 304 North St.	Boone
Greene, Mrs. William Alexander 500 Pinkney St.	Whiteville	Hagaman, Mrs. Len Doughton 101 Cherry Dr.	Boone
Greenwood, Mrs. James Brooks, Jr. 2319 Providence Rd.	Charlotte	Haines, Mrs. Hilton Drummond 700 E. Washington St.	Rockingham
Greer, Mrs. Thomas B. 4228 Rowan St.	Raleigh	Haines, Mrs. Innes Correll Rt. 4, Box 563	Fayetteville
Gregory, Mrs. John Eugene 521 Confederate Ave.	Salisbury	Hairfield, Mrs. Beverly Dew 415 W. Union St.	Morganton
Gregory, Mrs. R. D., Jr. 105 Kimberly Knoll	Asheville	Hairfield, Mrs. Theodore Vincent 504 Hospital Ave.	Lenoir
Greiss, Mrs. Frank 1041 Watson Ave.	Winston-Salem	Hall, Mrs. James Brownlee Rt. 1, Box 348-A	Matthews
Gridley, Mrs. Timothy H. 820 Carolina Ave.	Fayetteville	Hall, Mrs. John Moir West Main St.	Elkin
Grier, Mrs. Charles Talmadge Box 475	Carthage	Hall, Mrs. Joseph Cullen 839 Fairmont Ave.	Salisbury
Grier, Mrs. John Calvin, Jr. Midland Road	Pinehurst	Hall, Mrs. Kenneth Daland Hillgrand Circle	Durham
Griffin, Mrs. Harold Walker 178 17th Ave., N.W.	Hickory	Hall, Mrs. William Bruce, Jr. 543 Vista Dr.	Fayetteville
Griffin, Mrs. Robert Ashley 11 Hilltop Rd.	Asheville	Hall, Mrs. William Dewey 512 Franklin St.	Roanoke Rapids
Griffin, Mrs. Thomas Ray, Box 328	Troutman	Hall, Mrs. William Hugh 3635 Barclay Downs Dr.	Charlotte
Griffin, Mrs. William Ray, Jr. 30 Hilltop Rd.	Asheville	Ham, Mrs. Clem 709 West Blvd.	Laurinburg
Griffis, Mrs. John William Box 191	Denton	Ham, Mrs. George Calverno 519 Dogwood Dr.	Chapel Hill
Griggs, Mrs. Willard Wilson Box 217	Norwood	Hambrick, Mrs. Robert Theodore 529 Sixth St., N. W.	Hickory
Grim, Mrs. Kenneth Boyd 1421 Broad St.	Durham		

Hambright, Mrs. Rufus Roberts 2322 Danbury Rd.	Greensboro	Harrill, Mrs. James Albert 2860 Reynolds Rd.	Winston-Salem
Hamer, Mrs. Alfred Wilson 112 Pearson Dr.	Morganton	Harrington, Mrs. Lee I., Jr. 2423 Fairway Dr.	Winston-Salem
Hamer, Mrs. Douglas, Jr. 205 Norwood St.	Lenoir	Harris, Mrs. Charles Isaac, Jr. 500 School Drive	Williamston
Hamer, Mrs. Eugene Floyd P. O. Box 476	Monroe	Harris, Mrs. Charles Theodore, Jr. 425 Roberts Rd.	Salisbury
Hamilton, Mrs. Alfred Thomason 1422 Canterbury Rd.	Raleigh	Harris, Mrs. Isaac Emerson, Jr. 3900 Dover Rd., Hope Valley	Durham
Hamilton, Mrs. Frank Hutchinson, Jr. 2815 Marlowe Dr.	Charlotte	Harris, Mrs. Julian L. 1660 Mansfield Rd.	Winston-Salem
Hamilton, Mrs. John Homer 2124 Cowper Dr.	Raleigh	Harris, Mrs. Tyndall Peacock 410 Westwood Dr.	Chapel Hill
Hamilton, Mrs. Joseph Franklin, Jr. Albemarle Park	Asheville	Harry, Mrs. John McKamie 832 W. Rowan St.	Fayetteville
Hammon, Mrs. Louis 1433 6th St. Cl., N.W.	Hickory	Hart, Mrs. Julian Deryl 2324 Duke University Rd.	Durham
Hammond, Mrs. Alfred Franklin, Jr. 1514 Neuse Blvd.	New Bern	Hart, Mrs. Oliver James 1930 Georgia Ave.	Winston-Salem
Hamrick, Mrs. John Carl 1002 Kings Rd.	Shelby	Hart, Mrs. Lillard Franklin 236 E. Olive	Apex
Hamrick, Mrs. Ladd Watts, Jr. Northeast Drive	Concord	Hart, Mrs. Verling Kersey 106 W. 7th St.	Charlotte
Hand, Mrs. Edgar Hall	Pineville	Hartman, Mrs. Bernhard Henry 12 Cambridge Rd.	Asheville
Hanes, Mrs. Gideon Isaac, Jr. 836 Wellington Road	Winston-Salem	Hartness, Mrs. William Rufus, Jr. 615 Carr St.	Sanford
Happer, Mrs. William 205 Woodsway Lane	Lenoir	Hartzog, Mrs. Donald Clifford, Jr. 2069 Elizabeth Ave.	Winston-Salem
Harbison, Mrs. John William 911 N. Washington St.	Shelby	Hatcher, Mrs. Samuel W.	Morehead City
Hardaway, Mrs. John Steger 322 Valley Stream Rd.	Statesville	Hawes, Mrs. Cecil Jennings 2101 Wendover Rd.	Charlotte
Hardin, Mrs. Eugene Ramsey 1103 N. Elm St.	Lumberton	Hawes, Mrs. George Aubrey 1862 Queens Rd. W.	Charlotte
Hardin, Mrs. Richard Henry 205 S. Granville St.	Edenton	Hawkins, Mrs. Barry Fugh Williamsburg Road	Concord
Hardin, Mrs. Ronda Horton Wilkesboro Rd.	Boone	Hawkins, Mrs. Hal Burgess P. O. Box 68	Moravian Falls
Harding, Mrs. B. Hackett North Bridge St.	Elkin	Hawkins, Mrs. James Hubert	Alamance
Hardison, Mrs. Lewis Benjamin 113 Star Hill Rd.	Fayetteville	Hayes, Mrs. Donald Michael 1324 Irving St.	Winston-Salem
Hardman, Mrs. Edward Francis Route 2, Huntington Park	Charlotte	Hayes, Mrs. Hugh Harrison, Jr. 4257 Tottenham Rd.	Charlotte
Hare, Mrs. Roy Allen 1023 Sycamore St.	Durham	Hayes, Mrs. James Willard Lake View Rd.	Fairmont
Harer, Mrs. Adolph Eugene 1609 Canterbury Rd.	Raleigh	Hayes, Mrs. William Clayton Box 191	Wilkesboro
Hargrove, Mrs. Eugene Alexander Dorothy Dix Hospital	Raleigh	Haywood, Mrs. Hubert Benbury, Jr. 2718 Gloucester Rd.	Raleigh
Harmon, Mrs. Raymond Harris Highland Dr.	Boone	Heafner, Mrs. Bob Oliver Taylorsville Road	Stony Point
Harper, Mrs. Matt C., Jr. Caswell Training School	Kinston	Hedgepeth, Mrs. Emmett Martin Crestwood Dr.	Roxboro
Harper, Mrs. Robert N. 3322 Ocatea Drive	Raleigh	Hedgepeth, Mrs. Edward McGowan Rt. 3, Box 87	Chapel Hill
Harrell, Mrs. William Fletcher, Jr. 114 Simpson St.	Elizabeth City	Hedgepeth, Mrs. Louten Rhodes 1917 N. Walnut St.	Lumberton
Harrill, Mrs. Henry Clay 100 Elmwood Terrace	Greensboro	Hedgepeth, Mrs. William Carey 2405 Kenar St.	Lumberton
		Hedrick, Mrs. Clyde Reitzel 318 E. College Ave.	Lenoir

Hedrick, Mrs. Richard Eli	
1999 Georgia Ave.	Winston-Salem
Hege, Mrs. John Roy	
905 Martin Drive	Concord
Heinig, Mrs. Charles F.	
3226 Eastburn Rd.	Charlotte
Heinitsh, Mrs. George W.	
Knollwood	Southern Pines
Helms, Mrs. Jefferson Bivins	
319 W. Union St.	Morganton
Helsabeck, Mrs. Belmont Augustus	
2315 Country Club Rd.	Winston-Salem
Helsabeck, Mrs. Rupert Sylvester	
2080 Polo Road, N. W.	Winston-Salem
Hemmings, Mrs. Hugh Carroll	
Lurawood Dr.	Morganton
Hemphill, Mrs. James Eugene	
2002 Pinewood Circle	Charlotte
Henderson, Mrs. Andrew McKnitt, Jr.	
Mazeppa Road	Mooreville
Henderson, Mrs. John Percy, Sr.	
417 College St.	Jacksonville
Hendricks, Mrs. Paul Eugene	
808 W. Mountain St.	Kings Mountain
Henschen, Mrs. Hal	
2515 Morganton Rd.	Fayetteville
Henson, Mrs. Thomas Albert	
1105 Country Club Dr.	Greensboro
Herrin, Mrs. Keith Hermon	
1204 Fairfield Dr.	Gastonia
Herring, Mrs. Charles	
Carey Road	Kinston
Herring, Mrs. Edward H.	
1126 Harvey St.	Raleigh
Herring, Mrs. Theodore Tilghman	
Ripley Road	Wilson
Hester, Mrs. Joseph McMurray	
1711 Wilshire Blvd.	Wilson
Hester, Mrs. Joseph Robert	
1 Buffalo St.	Wendell
Hewitt, Mrs. Willard Chappel	
Route 7, W. Front St. Ext.	Burlington
Heyman, Mrs. Albert	
1405 Woodburn Rd.	Durham
Hiatt, Mrs. Joseph Spurgeon, Jr.	
Box 85	Southern Pines
Hickman, Mrs. Harry Stuart	
201 N. Boundary St.	Lenoir
Hicks, Mrs. Jesse Robinson	
1509 Maryland Ave.	Charlotte
Hicks, Mrs. Vonnice Monroe, Jr.	
1515 Scales St.	Raleigh
Hiestand, Mrs. Fitz Gerald	
1701 Sterling Rd.	Charlotte
Higgins, Mrs. Robert Donald	
Box 6065, Five Points Sta.	Raleigh
High, Mrs. Larry Allson	Nashville
Highsmith, Mrs. Charles, Sr.	
210 N. Wilson Ave.	Dunn
Highsmith, Mrs. Charles, Jr.	Troy
Highsmith, Mrs. George Perry	
Valley Road	Thomasville
Highsmith, Mrs. William Cochran	
220 Bradford Ave.	Fayetteville
Highsmith, Mrs. William Jesse, Jr.	
Box 671	Plymouth
Hightower, Mrs. Felda	
2455 Reynolds Drive	Winston-Salem
Hilderman, Mrs. Walter Carrington, Jr.	
1724 Brandon Rd.	Charlotte
Hill, Mrs. Millard D.	
818 Daniels St.	Raleigh
Hill, Mrs. William Henry	
115 E. South St.	Albemarle
Hinman, Mrs. Alanson	
792 Roslyn Rd.	Winston-Salem
Hipp, Mrs. Edward Reginald, Sr.	
348 Hempstead Pl.	Charlotte
Hitch, Mrs. Joseph Martin	
918 Cowper Dr.	Raleigh
Hobart, Mrs. Seth Guilford, Jr.	
2011 W. Club Blvd.	Durham
Hockett, Mrs. Harry G.	
Veterans Administration Hosp.	Salisbury
Hodges, Mrs. Horace Hayden	
423 Ferncliff Rd.	Charlotte
Hoggard, Mrs. William Alden, Jr.	
2501 Rochelle	Elizabeth City
Hogshead, Mrs. Ralph, Jr.	
230 W. Park Dr.	Morganton
Holbrook, Mrs. Joseph Samuel	
223 N. Oak St.	Statesville
Holbrook, Mrs. William Douglas	
4141 Arborway	Charlotte
Hollandsworth, Mrs. Luther Clarence	
Walnut Street	Lumberton
Hollister, Mrs. William Fredwin	
Midland Rd.	Southern Pines
Hollowell, Mrs. Victor Boyce	
515 Fenton Pl.	Charlotte
Holmes, Mrs. George Washington	
524 Roslyn Rd.	Winston-Salem
Holt, Mrs. Lawrence Byerly	
2812 Reynolds Dr.	Winston-Salem
Hood, Mrs. Christopher Kennedy	
5143 Beckford Dr.	Charlotte
Hood, Mrs. Richard Thornton, Jr.	
Country Club Road	Kinston
Hooks, Mrs. Richard Eugene	St. Pauls
Hooper, Mrs. Clifford Harold	
20 Lynnstone Court	Asheville
Hooper, Mrs. Joseph Ward, Sr.	
1817 Market St.	Wilmington
Hooper, Mrs. Joseph Ward, Jr.	
2600 Parmelee Dr.	Wilmington
Hoot, Mrs. Melvin Phillip	
1505 E. 5th St.	Greenville
Hopper, Mrs. Clyde Graham, Jr.	
Route 7	Monroe
Hornowski, Mrs. Marcel Jerome	
317 Charlotte St.	Asheville
Horsley, Mrs. Thomas Martin	
1115 Raleigh Park	Elizabeth City

Horsley, Mrs. William Nolen South Point Rd.	Belmont	Inman, Mrs. Charles Ernest Fisher Park	Fairmont
Hoskins, Mrs. John Robinson, III 36 Evelyn Pl.	Asheville	Irving, Mrs. Richard Carroll 601 4th Ave. W.	Hendersonville
Hoskins, Mrs. William Hume E. College St.	Whiteville	Irwin, Mrs. Henderson	Eureka
Hough, Mrs. Mac Johnson 3234 Park Rd.	Charlotte	Isbey, Mrs. Edward Kenneth, Jr. 5 Pine Tree Circle	Asheville
Houghton, Mrs. Raymond C. 1800 River Dr.	New Bern	Isenhower, Mrs. Joseph Andrew 235 6th St., S.E.	Hickory
Houser, Mrs. Forest Melville Elm St.	Cherryville	Ivey, Mrs. Henry B. 105 N. Pineview Ave.	Goldsboro
Howard, Mrs. Corbett Etheridge 618 E. Park Ave.	Goldsboro	Izlar, Mrs. Henry LeRoy, Jr. 2202 Sprunt St.	Durham
Howard, Mrs. Joseph Cooper, Jr. 407 Lafayette St.	Clinton	Jackson, Mrs. Marshall Vaden Box 87	Princeton
Howard, Mrs. Paul Osman Carbonton Hgts.	Sanford	Jackson, Mrs. Richard DeWitt 821 Rockford St.	Mt. Airy
Howell, Mrs. Julius Ammons 2662 Robin Hood Rd.	Winston-Salem	Jackson, Mrs. Robert Toombus 3347 Alamance Dr.	Raleigh
Howell, Mrs. William Lawrence	Ellerbe	Jackson, Mrs. Roger A. 111-A Dobbin Ave.	Fayetteville
Hubbard, Mrs. Frederick Cecil, Sr.	Wilkesboro	Jacobs, Mrs. Julian Erich John 2000 Providence Rd.	Charlotte
Hubbard, Mrs. Robert Thomas 126 Lakeshore Dr.	Asheville	James, Mrs. Arthur Augustus, Jr. 614 Spring Lane	Sanford
Huckriede, Mrs. Mark Henry McNeill Drive	Laurinburg	James, Mrs. George W. 1020 Wellington Rd.	Winston-Salem
Hudson, Mrs. Miles Hildebrand 240 Bouchard St.	Valdese	James, Mrs. John C. 107 S. Main St.	Maiden
Huey, Mrs. Thomas Walker, Jr. 2538 Sharon Rd.	Charlotte	James, Mrs. Richard Thomas, Jr. 4051 Abingdon Rd.	Charlotte
Huffman, Mrs. Stanton Vance Route 2	Elon College	James, Mrs. William Daniel Vance St.	Hamlet
Hughes, Mrs. Carlisle Bee, Jr. Box 326	Yadkinville	James, Mrs. William Duer, Jr. 306 Entwistle St.	Hamlet
Hughes, Mrs. Jack 30 Kimberly Dr.	Durham	Jarman, Mrs. Fontaine Graham, Sr. 402 Hamilton St.	Roanoke Rapids
Humphries, Mrs. Charles Oliver 3835 Sommerset Road	Durham	Jarman, Mrs. Fontaine Graham, Jr. Rochelle Court	Roanoke Rapids
Huneycutt, Mrs. Joel Broadus 1305 Calhoun Ave.	Albemarle	Jarrell, Mrs. Wilburn Eric Knollwood Drive	Mt. Airy
Hunt, Mrs. Jasper Stewart 2064 Queens Rd., E.	Charlotte	Jarvis, Mrs. James Luther 1003 Woodland Drive	Gastonia
Hunt, Mrs. Walter Skellie, Jr. 1606 Canterbury Rd.	Raleigh	Jenkins, Mrs. Albert Milton 823 Bryan St.	Raleigh
Hunt, Mrs. William Jack 720 Ferndale Dr.	High Point	Jennings, Mrs. Clarke W.	Newton
Hunter, Mrs. W. Myers 600 East Blvd.	Charlotte	Jennings, Mrs. Lowell Eugene Modena Street Ext.	Gastonia
Hunter, Mrs. William Blair 1007 10th St.	Lillington	Jennings, Mrs. Royal Green 724 Florham Ave.	High Point
Hunter, Mrs. William Cooper 1106 W. Nash St.	Wilson	Jeter, Mrs. Robert Vernon	Plymouth
Huntley, Mrs. Robert R. 11 Oakwood Drive	Chapel Hill	Johnson, Mrs. Amos Neill	Garland
Hurdle, Mrs. Samuel Walker 2571 Country Club Rd.	Winston-Salem	Johnson, Mrs. Cecil L. 1616 Palm St.	Goldsboro
Hurdle, Mrs. Thomas Gray 2503 Mirror Lake Dr.	Fayetteville	Johnson, Mrs. Charles Thomas, Sr.	Red Springs
Hutchinson, Mrs. Sankey Smith	Bladenboro	Johnson, Mrs. Charles Thomas, Jr.	Red Springs
Ingram, Mrs. Charles Hal 1200 Westwood Ave.	High Point	Johnson, Mrs. Dan Earnhardt 101 Meadowood Dr.	Lenoir
		Johnson, Mrs. Floyd 201 Pinkney St.	Whiteville

Johnson, Mrs. Gaston Frank 3225 Nottingham Rd.	Winston-Salem	Jones, Mrs. William Isaac 3521 Highview Rd.	Charlotte
Johnson, Mrs. George, Jr. 1601 Hermitage Ct.	Durham	Jones, Mrs. William Robert 217 Clifton Rd.	Rocky Mount
Johnson, Mrs. Harry Lester Box 530	Elkin	Jordan, Mrs. John Alfred, Jr. 236 Pinecrest Dr.	Fayetteville
Johnson, Mrs. Harry L., Jr.	Granite Quarry	Jordan, Mrs. Riley Moore 310 Fulton St. Ext.	Raeford
Johnson, Mrs. Heber Wellington 3002 Wayne Dr.	Wilmington	Jordan, Mrs. Weldon Huske 601 Westmont Dr.	Fayetteville
Johnson, Mrs. John Ralph N. Orange St.	Dunn	Joyner, Mrs. William Stafford 401 Whitehead Circle	Chapel Hill
Johnson, Mrs. Joseph A. Winslow Acres	Elizabeth City	Justa, Mrs. Samuel Harry 505 Piedmont Ave.	Rocky Mount
Johnson, Mrs. Joseph Lewis 205 N. Main St.	Graham	Justice, Mrs. William Shipp 14 White Oak Rd.	Asheville
Johnson, Mrs. Paul William Route 8, Green Meadows	Winston-Salem	Justis, Mrs. Homer Rodeheaver 820 Fairbanks Rd.	Charlotte
Johnson, Mrs. Robert Charles 701 Locust St.	High Point	Kaasa, Mrs. Laurin J. 503 Hawthorne Rd.	Raleigh
Johnson, Mrs. Thomas Milton, Jr.	Smithfield	Kalevas, Mrs. Harry John 3827 Abingdon Rd.	Charlotte
Johnson, Mrs. Walter Royle 3 Fairway Place	Asheville	Kane, Mrs. Francis J., Jr. 701 Hayes Road	Chapel Hill
Johnson, Mrs. Wingate Memory 428 Stratford Rd.	Winston-Salem	Kapoor, Mrs. S. N. 405½ S. Maynard Ave.	Durham
Johnston, Mrs. Frank Randolph 735 Arbor Rd.	Winston-Salem	Kappler, Mrs. John Frederick 704 E. Harper	Lenoir
Johnston, Mrs. George Brown Westmont Drive	Asheboro	Katz, Mrs. Joseph Westminster Rd.	Kinston
Johnston, Mrs. Harvey Wylie 1915 Club Rd.	Charlotte	Kaufman, Mrs. Karl Frederick S. Rugby Road	Hendersonville
Johnston, Mrs. William Oliver 2611 Forest Dr.	Charlotte	Kavanagh, Mrs. William Paul 1127 W. Henderson St.	Salisbury
Jones, Mrs. A. McCray Shady Banks	Washington	Kearns, Mrs. Paul Rutherford 640 Davie Ave.	Statesville
Jones, Mrs. Beverly Nicholas, Sr. 455 Carolina Cl.	Winston-Salem	Kearse, Mrs. William Oliver	Canton
Jones, Mrs. Beverly Nicholas, Jr. 633 Barnesdale Rd.	Winston-Salem	Keever, Mrs. James Woodfin 623 Second Ave., N.W.	Hickory
Jones, Mrs. Clayton Joe 873 Arbor Lane	Concord	Keiter, Mrs. William Eugene 1507 Perry Park Dr.	Kinston
Jones, Mrs. Craig Strickie Cleveland Springs	Shelby	Keith, Mrs. Julian Faison, Jr. Box 635	Clarkton
Jones, Mrs. Dean Cicero	Jefferson	Keith, Mrs. Marion Yates 1603 Carlisle Rd.	Greensboro
Jones, Mrs. Edward L. 400 Randolph St.	Thomasville	Keleher, Mrs. Michael Francis 18 Maywood Rd.	Asheville
Jones, Mrs. Frank Woodson Westlake Hills	Newton	Kelemen, Mrs. William Arthur 1206 Kennilworth Ave.	Charlotte
Jones, Mrs. James Grady 3241 Hagar Dr.	Jacksonville	Kellam, Mrs. Donald S. 629 Lockridge Rd.	Charlotte
Jones, Mrs. Joseph Kempton 109 E. Boundary St.	Chapel Hill	Keller, Mrs. Guy Otis 1223 Providence	Charlotte
Jones, Mrs. Joseph Reid, Jr. Box 298	King	Kelley, Mrs. Thomas Francis 805 Montgomery Ave.	Albemarle
Jones, Mrs. Martin Evans	Granite Falls	Kelly, Mrs. Luther Wrentmore, Sr. 1014 Kenilworth Ave.	Charlotte
Jones, Mrs. Otis Hunter 1710 Queens Rd. W.	Charlotte	Kelly, Mrs. Luther Wrentmore, Jr. 3915 Suffolk Place	Charlotte
Jones, Mrs. Paul Erastus Rt. 3, Box 452A	Concord	Kelly, Mrs. Richard Alexander 308 N. Chapman	Greensboro
Jones, Mrs. Robert Spurgeon 405 Beaumont	Shelby	Kemp, Mrs. Malcolm Drake 210 Highland Rd.	Southern Pines
Jones, Mrs. Thomas Thweatt 2621 Stuart Dr.	Durham		

Kenan, Mrs. LeRoy Fulton 22 Henderson St.	Badin
Kendall, Mrs. John Harold 800 Stewart Ave.	Clinton
Kendrick, Mrs. Richard Leon 4200 Tottenham Rd.	Charlotte
Kennedy, Mrs. John Pressly 2026 Providence Rd.	Charlotte
Kennedy, Mrs. Leon Toland 2146 Sharon Lane	Charlotte
Keppel, Mrs. Robert Alvin 1919 7th St., N.W.	Hickory
Kermon, Mrs. Louis Todd 1625 Canterbury Rd.	Raleigh
Kern, Mrs. John Campbell Box 6	Booneville
Kernodle, Mrs. Charles Edward, Jr. 444 Tarleton Ave.	Burlington
Kernodle, Mrs. Dwight Talmadge Route 1	Elon College
Kernodle, Mrs. Harold Barker 423 Glenwood Ave.	Burlington
Kernodle, Mrs. John Robert Edgewood Ave. Ext.	Burlington
Kerns, Mrs. Thomas Cleveland, Sr. 120 Briar Cliff Rd.	Durham
Kerns, Mrs. Thomas Cleveland, Jr. 75 Beverly Dr.	Durham
Kerr, Mrs. George Russell Woodland Ave. Ext.	Burlington
Kerr, Mrs. John Guthrie	Leicester
Kesler, Mrs. Robert Cicero 705 Twyckenham Dr.	Greensboro
Kester, Mrs. John Marcas, Jr. 1935 Avondale Ave.	Charlotte
Ketner, Mrs. Fred Yarkin 185 Washington Lane	Concord
Keys, Mrs. Carson Meade	West Jefferson
Kibler, Mrs. William Herbert 100 Valdese Ave.	Morganton
Kidd, Mrs. Ralph Vincent, Jr. 227 Canterbury Rd.	Charlotte
Killam, Mrs. A. Robert 3501 Sottywood Drive	Fayetteville
Kimbrell, Mrs. Odell Culp 615 Currituck Dr.	Raleigh
Kimel, Mrs. C. A. 4132 Snyder Dr.	Winston-Salem
Kincheloe, Mrs. Franklin S.	Selma
King, Mrs. Duncan I. Campbell	Flat Rock
King, Mrs. Edward Sandling Wesson Road	Shelby
King, Mrs. Francis Parker 1605 Lucerne Way	New Bern
King, Mrs. James LeRoy 1104 Virginia Ave.	Monroe
King, Mrs. Parks McCombs 1101 Andover Rd.	Charlotte
King, Mrs. Robert Rogers 138 Blowing Rock	Boone
King, Mrs. Robert Wilson 113 Dobbin Ave.	Fayetteville
King, Mrs. Walter Gorringer 1305 Latham Rd.	Greensboro
Kinlaw, Mrs. Murray Carlyle 202 W. 21st St.	Lumberton
Kirby, Mrs. William Leslie 734 Arbor Rd.	Winston-Salem
Kirkland, Mrs. John Alvin 714 Trinity Dr.	Wilson
Kirksey, Mrs. James Jackson 201 Riverside Dr.	Morganton
Kirksey, Mrs. William Albert 302 S. King St.	Morganton
Kitchen, Mrs. Thomas Ward 103 Meadowood Dr.	Lenoir
Kitchin, Mrs. Thurman Delna 413 N. Main St.	Wake Forest
Kitchin, Mrs. William Walton Coharie Dr.	Clinton
Kling, Mrs. L. G. West Daniel Street	Kinston
Klostermyer, Mrs. Louis Leon 419 Vanderbilt Rd.	Asheville
Kneedler, Mrs. William Harding Box 338	Davidson
Knight, Mrs. Floyd Lafayette Route 4	Sanford
Knoefel, Mrs. Arthur Eugene, Jr. 104 Laurel Circle	Black Mountain
Knox, Mrs. Joseph Clyde 1228 S. Live Oak Parkway	Wilmington
Kodack, Mrs. Albert 9 N. Kensington Rd.	Asheville
Kokiko, Mrs. George Victor 603 Dartmouth Dr.	Gastonia
Koogler, Mrs. B. Robert	Candor
Kooman, Mrs. Jacob 909 Dogwood Lane	Raleigh
Koonce, Mrs. Donald Brock 1407 Oleander Dr.	Wilmington
Koseruba, Mrs. George Michael Rt. 1, Box 161-A	Castle Hayne
Koury, Mrs. George Eli Route 7, Cedarwood Drive	Burlington
Kramer, Mrs. Morris 503 Walnut St.	Lumberton
Kremers, Mrs. Marshall Y. 318 Westover Rd.	Seymour Johnson AFB
Kreshon, Mrs. Martin John 1419 Townes Rd.	Charlotte
Kroh, Mrs. Laird Franklin 2201 McClintock Rd.	Charlotte
Kroncke, Mrs. Fred George 623 Cedar St.	Roanoke Rapids
Kurtz, Mrs. Elam	Jefferson
Kutscher, Mrs. George William 29 Elk Mountain Scenic Hwy.	Asheville
Kutteh, Mrs. Hanna Constantine 567 Lakeside Dr.	Statesville
Kyles, Mrs. Norman Bruce Cherry Hospital	Goldsboro

Lackey, Mrs. Robert Stevenson		
3931 Suffolk Pl.	Charlotte	
Lackey, Mrs. Walter Jackson	Fallston	
Lacy, Mrs. Thomas Allen		
228 W. Fisher St.	Salisbury	
Lafferty, Mrs. John Ogden		
1940 Overhill Rd.	Charlotte	
Lafferty, Mrs. Robert H.		
1960 Randolph Rd.	Charlotte	
LaGrange, Mrs. C. Rex	Bladenboro	
Lahser, Mrs. Charles Irvin		
Churchill Dr.	Gastonia	
Lake, Mrs. Ralph Callihan		
106 Elgin Place	Greensboro	
Lambeth, Mrs. William Arnold, Jr.		
Route 8	Winston-Salem	
Lampley, Mrs. Charles Gordon		
Fairway Dr.	Shelby	
Lampley, Mrs. William Askew		
116 Briarwood Lane	Hendersonville	
Landon, Mrs. Henry C., III		
611 Eighth St.	North Wilkesboro	
Lane, Mrs. Edgar Winslow, Jr.		
Bouchard St.	Valdese	
Lang, Mrs. Andrew Martin		
106 N. Anderson St.	Morganton	
Langdell, Mrs. Robert Dana		
11 William Circle	Chapel Hill	
Langdon, Mrs. Benjamin Bruce		
Rt. 4, Box 567	Fayetteville	
Janier, Mrs. Verne Clifton		
Box 75	Welcome	
Lapsley, Mrs. Alberti Fraser		
4 Tallassee St.	Badin	
Large, Mrs. Hiram Lee, Jr.		
Route 1, Box 358-B	Matthews	
Larkin, Mrs. Ernest Wadill, Jr.		
1202 Respass St.	Washington	
Larson, Mrs. John		
Jonesboro Heights	Sanford	
Lassiter, Mrs. Tallie B.	Biscoe	
Lassiter, Mrs. Will Hardee, Jr.		
709 Sunset Dr.	Smithfield	
Laton, Mrs. James Franklin		
116 E. North St.	Albemarle	
La Tourette, Mrs. Kenneth Abran	Flat Rock	
Lawing, Mrs. Karl Lander		
327 N. Laurel St.	Lincolnton	
Lawrence, Mrs. Benjamin Jones	Fuquay Springs	
Lawrence, Mrs. John Charles		
1200 N. Elm	Lumberton	
Leath, Mrs. MacLean Bacon	Archdale	
Leath, Mrs. Thomas Edward		
3632 Kempton Pl.	Charlotte	
LeBauer, Mrs. Maurice Leon		
2023 St. Andrews Rd.	Greensboro	
Ledbetter, Mrs. John Winslow		
919 Hendersonville Rd.	Asheville	
Lee, Mrs. Allen Henry		
309 N. Massey	Selma	
Lee, Mrs. Ferdinand Wayne		
442 Hempstead	Charlotte	
Lee, Mrs. Francis Brown		
Pageland Rd.	Monroe	
Lee, Mrs. Thomas Leslie		
Rountree St.	Kinston	
Lee, Mrs. Willard E., Jr.		
411 Monticello Dr.	Wilson	
LeGrand, Mrs. Robert Hampton		
2014 Pembroke Rd.	Greensboro	
Leinbach, Mrs. Lawrence Brickenstein		
1060 Kenleigh Circle	Winston-Salem	
Lennon, Mrs. Hershel Clanton		
911 Sunset Dr.	Greensboro	
Leonard, Mrs. Walter Evan		
104 27th St., N.W.	Hickory	
Lerner, Mrs. Paul Maynard		
5 Maplewood Parkway	Asheville	
Levi, Mrs. George Albert		
605 Pearl St.	Fayetteville	
Lewis, Mrs. Clifford Whitfield		
322 Woodrow	High Point	
Lewis, Mrs. Dockery Durham, Jr.		
808 Henkle Road	Statesville	
Lewis, Mrs. John Sumter		
362 N. Center St.	Hickory	
Lewis, Mrs. Lawrence		
2218 Meadow Wood Rd.	Fayetteville	
Lewis, Mrs. Martin Thomas	Beaufort	
Lewis, Mrs. Robert Edward		
Finley Park	North Wilkesboro	
Lide, Mrs. Thomas Norwood		
601 Barnsdale Rd.	Winston-Salem	
Ligon, Mrs. Harold Belton		
15 Cedarcliff Rd.	Asheville	
Liles, Mrs. George Welch		
Williamsburg Road	Concord	
Liles, Mrs. Lonnie Carl		
3025 Randolph Dr.	Raleigh	
Lill, Mrs. Nicholas D.		
4808 Ashton Road	Fayetteville	
Lilly, Mrs. William Harold		
Benson Highway	Dunn	
Lindsay, Mrs. Robert Boyd		
King's Mill Road	Chapel Hill	
Lindsey, Mrs. Mark McDonald		
Box 1189	Hamlet	
Link, Mrs. Melvin Robert		
1050 Ardsley Rd.	Charlotte	
Lippett, Mrs. Devereaux H.		
2109 Woodland Ave.	New Bern	
Little, Mrs. Howard Q. L.		
Box 205	Gibsonville	
Little, Mrs. Joseph Rice		
14 Oak Road	Salisbury	
Littlejohn, Mrs. James Talmadge		
8 Cedarcliff Rd.	Asheville	
Littlejohn, Mrs. Thomas Willard		
2402 Forest Dr.	Winston-Salem	
Littleton, Mrs. Leonidas Rosser, Jr.		
N. Surry Hospital	Mt. Airy	
Liverman, Mrs. Henry Joseph	Engelhard	
Liverman, Mrs. Joseph Thomas	Nashville	

Llewellyn, Mrs. Charles Elroy, Jr. 3550 Hamstead Court .....Durham	Lupton, Mrs. Emmett Stevenson Box 485 .....Alamance
Lloyd, Mrs. Clyde F. 1303 Vandora Ave. ....Garner	Lusk, Mrs. John A., III 1809½ Independence Rd. ....Greensboro
Lock, Mrs. Frank Ray 1819 Buena Vista Rd. ....Winston-Salem	Lusk, Mrs. Walter Coles 1802 Independence Rd. ....Greensboro
Lockhart, Mrs. David Armistead Rt. 3, Burrage Rd. ....Concord	Lutterloh, Mrs. Isaac Hayden, Sr. 202 McIver St. ....Sanford
Lockhart, Mrs. Walter Samuel, Jr. 412 Carolina Circle .....Durham	Lutterloh, Mrs. Isaac Hayden, Jr. 510 Walnut Dr. ....Sanford
Lodmell, Mrs. Elmer Arthur 1308 Cornwallis .....Greensboro	Lutz, Mrs. James Dwight Box 1242 .....Hendersonville
Lohr, Mrs. Dermot Vance Circle .....Lexington	Lyday, Mrs. Charles Emmett 819 S. York St. ....Gastonia
Lomax, Mrs. Donald Henry 1125 Emerald St. ....Salisbury	Lyday, Mrs. John E. 2205 Briarwood Dr. ....Greensboro
London, Mrs. Arthur Hill, Jr. Shepherd and Wells Sts. ....Durham	Lyday, Mrs. Russell Osborne 1610 Nottingham Rd. ....Greensboro
London, Mrs. William L. 1312 Watts St. ....Durham	Lyday, Mrs. William Davie 1701 Hertford Rd. ....Charlotte
Long, Mrs. Benjamin Leroy .....Glen Alpine	Lymbertis, Mrs. Marvin Nicholas 2111 Radcliffe Ave. ....Charlotte
Long, Mrs. David Thomas 405 S. Main St. ....Roxboro	Lynch, Mrs. John Franklin, Jr. 905 Arbordale Dr. ....High Point
Long, Mrs. Rowland V. Erwin Heights .....Thomasville	Lynn, Mrs. Clabe W., Jr. 1507 Ambleside Dr. ....Raleigh
Long, Mrs. Thomas Drumwright 513 S. Lamar St. ....Roxboro	Lynn, Mrs. Cy Kellie Bouchard St. ....Valdese
Long, Mrs. Thomas Walter 724 N. Main St. ....Newton	Lynn, Mrs. James Wiley, Jr. Rockwood Acres .....Burlington
Long, Mrs. Vann McKee 1020 West End Blvd. ....Winston-Salem	Lyon, Mrs. Brockton Reynolds Country Club Apts. ....Greensboro
Long, Mrs. William Lunsford, Jr. 1103 Cowper Dr. ....Raleigh	MacAlpine, Mrs. Orville Duncan Route 2 .....Candler
Long, Mrs. William Matthews .....Mocksville	Macatee, Mrs. George, Jr. 25 Inglewood Rd. ....Asheville
Long, Mrs. Zachary Filmore 214 Ann St. ....Rockingham	MacBrayer, Mrs. Lewis Burgin III 641 E. Center Ave. ....Mooresville
Longino, Mrs. Frank Henry 1914 Forest Hill Dr. ....Greenville	MacDonald, Mrs. J. Kingsley 3600 Barclay Downs Dr. ....Charlotte
Lore, Mrs. Ralph Eli 407 Pennton Ave. ....Lenoir	MacKay, Mrs. James Calvin 1805 Grace St. ....Wilmington
Lott, Mrs. William Clifton 310 Vanderbilt Rd. ....Asheville	Mackie, Mrs. George Carlyle Box 927 .....Wake Forest
Lounsbury, Mrs. James Breckinridge 2519 Guilford Ave. ....Wilmington	MacLauchlin, Mrs. William Thompson .....Conover
Lovell, Mrs. William Figgatt 1517 Biltmore Dr. ....Charlotte	MacRae, Mrs. John Donald 2813 Skye Dr. ....Fayetteville
Lowery, Mrs. Charles D. ....Lowell	Maddrey, Mrs. Milner Crocker 610 Franklin St. ....Roanoke Rapids
Lowery, Mrs. John Robert 1620 Wiltshire .....Salisbury	Madry, Mrs. H. Ray, Jr. ....Roseboro
Lownes, Mrs. Milton Markley, Jr. Redwheel Farm .....Dudley	Maher, Mrs. James A. Overbrook Drive .....Goldsboro
Lucas, Mrs. Robert Theodore, Jr. 318 Chiswick Pl. ....Charlotte	Major, Mrs. Richard Smart 816 Fourth Ave., W. ....Hendersonville
Lumb, Mrs. George Dennett 1325 Hawthorne Road .....Wilmington	Maness, Mrs. Archibald Kelly 1918 Granville Rd. ....Greensboro
Lund, Mrs. Herbert Zachareus 3610 Kirby Dr. ....Greensboro	Maness, Mrs. Paul Franklin 1010 Central Ave. ....Burlington
Lunsford, Mrs. Lewis, Jr. 20 Hy-Vu Drive .....Asheville	Manly, Mrs. Isaac Vaughan 2515 Lakeview Dr. ....Raleigh
Lupton, Mrs. Carroll Crescent 3300 Starmount Dr. ....Greensboro	

Manly, Mrs. James Hollowell, Jr. 2100 St. James Rd.	Raleigh	Maynard, Mrs. Eugene Vincent P. O. Box 155	Elm City
Manning, Mrs. Isaac Hall, Jr. 3901 Hope Valley Rd.	Durham	Meadows, Mrs. Joseph Herman 108 Clyde Ave.	Wilson
Marder, Mrs. Gerard Bridle Path Trail	Gastonia	Means, Mrs. Robert Lee 3040 Kinnamon Rd.	Winston-Salem
Marks, Mrs. Edgar Seymour 1112 Hamel Rd.	Greensboro	Mease, Mrs. Willis Eugene Box 327	Richlands
Marr, Mrs. James Tilden 1718 Virginia Rd.	Winston-Salem	Mebane, Mrs. Giles Yancey Carr St.	Mebane
Marr, Mrs. Myron Whitmore Linden Road	Pinehurst	Medlin, Mrs. Charles Thomas Box 267	Rural Hall
Marsh, Mrs. Frank Baker 725 Lake Drive	Salisbury	Mees, Mrs. Theodore Howell Maxton Rd.	Lumberton
Marshall, Mrs. James Flournoy 341 Arbor Rd.	Winston-Salem	Melero, Mrs. Andres Tarcisio Newell Heights	Roxboro
Marshburn, Mrs. Elisha Thomas, Jr. 2962 Park Ave.	Wilmington	Melton, Mrs. Robert Allen Route 3, Box 192, Pirate's Cove ..	Wilmington
Martin, Mrs. Benjamin Franklin 2540 Warwick Rd.	Winston-Salem	Menefee, Mrs. Elijah Eugene, Jr. 2205 Cranford Rd.	Durham
Martin, Mrs. Dan Anderson Sourwood Drive	Chapel Hill	Menzies, Mrs. Henry Harding 814 Oaklawn Ave.	Winston-Salem
Martin, Mrs. James Franklin 734 Roslyn Rd.	Winston-Salem	Meritt, Mrs. Joseph E., Jr. S-5 Raleigh Apts.	Raleigh
Martin, Mrs. Sidney Arnold 2711 Fairview Rd.	Raleigh	Merritt, Mrs. Jesse Frederic 3702 Starmount Dr.	Greensboro
Martin, Mrs. William Francis 1534 Queens Rd., W.	Charlotte	Merritt, Mrs. John Hamlett Barnette Ave.	Roxboro
Mason, Mrs. Lockert Bemiss 824 Country Club Rd.	Wilmington	Meschan, Mrs. Isadore 751 Roslyn Rd.	Winston-Salem
Mason, Mrs. Manly	Newport	Metcalf, Mrs. Lawrence Edward Chunns Cove Rd.	Asheville
Mason, Mrs. Philip Royden Old Mocksville Rd.	Statesville	Mewborn, Mrs. John Moses	Farmville
Massey, Mrs. Charles Caswell 1318 Carlton Ave.	Charlotte	Meyer, Mrs. George Sourwood Drive	Chapel Hill
Massey, Mrs. Thomas N., Jr. 110 Placid Place	Charlotte	Milam, Mrs. D. Franklin 811 Morgan Creek Rd.	Chapel Hill
Matheson, Mrs. Robert Arthur Drawer 608	Raeford	Miller, Mrs. Andrew C., III 110 W. Mauney Circle	Gastonia
Mathews, Mrs. Robert William 311 Meadowbrook Terr.	Greensboro	Miller, Mrs. Cameron Eugene	Jefferson
Matthews, Mrs. Hugh Archie	Canton	Miller, Mrs. Emery Clyde, Jr. 438 Lynn Ave.	Winston-Salem
Matthews, Mrs. Roland Dellwood 147 Tarleton Ave.	Burlington	Miller, Mrs. George Rolfe 1040 Paramount Circle	Gastonia
Matthews, Mrs. Vann M. P. O. Box 1711	Charlotte	Miller, Mrs. Harry 408 Lynn Ave.	Fayetteville
Matthews, Mrs. William Camp 645 Hempstead Pl.	Charlotte	Miller, Mrs. Henry Rankin Fairway Drive	Black Mountain
Mattox, Mrs. Huitt Everett, Jr. 1308 Grove St.	Wilson	Miller, Mrs. Henry Shelton, Jr. 920 Goodwood Rd.	Winston-Salem
Mauzy, Mrs. Charles Hampton, Jr. 1820 Greenbriar Rd.	Winston-Salem	Miller, Mrs. Ira Ben 1207 Westwood Ave.	High Point
Maxwell, Mrs. Clarence Schuyler	Beaufort	Miller, Mrs. Joseph Teles 914 Springdale Lane	Gastonia
May, Mrs. Harvey Craig 1136 Berkeley Ave.	Charlotte	Miller, Mrs. Milton L. Route 2, Box 64	Chapel Hill
May, Mrs. William Joseph 1824 Georgia Ave.	Winston-Salem	Miller, Mrs. Oscar Lee 514 Fenton Place	Charlotte
Maybin, Mrs. Richard Madden Drawer M	Lawndale	Miller, Mrs. Robert Carlisle 414 Harvie St.	Gastonia
Mayer, Mrs. Walter Brem 2828 St. Andrews Lane	Charlotte	Miller, Mrs. Robert Evans 825 Ardsley Rd.	Charlotte

Miller, Mrs. Robert Plato P. O. Box 2017	Charlotte
Miller, Mrs. Walton Hoy, Jr. 1606 E. Mulberry St.	Goldsboro
Milling, Mrs. James Reaves	Waynesville
Millns, Mrs. Dale Thomas 1316 National Ave.	New Bern
Mills, Mrs. Wardell Hardee 1202 Country Club Dr.	Greensboro
Minges, Mrs. Ray Donald Longmeadow Rd.	Greenville
Minick, Mrs. James Elder Box 227	Booneville
Mitchell, Mrs. Fred Neal 439-B Wakefield Dr.	Charlotte
Mitchell, Mrs. George William 807 W. Kenan St.	Wilson
Mitchell, Mrs. Roy Colonel Spring Street	Mt. Airy
Mitchell, Mrs. Thomas Brice 921 E. Marion	Shelby
Mitchener, Mrs. Calvin Chambers 4865 Stafford Cl.	Charlotte
Mitchener, Mrs. James Samuel, Jr. Morrison Lane	Laurinburg
Mock, Mrs. Charles Glenn 117 Greylyn Dr.	Charlotte
Mohr, Mrs. Jack Elmer 207 E. 17th	Lumberton
Monroe, Mrs. Clement Rosenberg Thayer Cottage	Pinehurst
Monroe, Mrs. Daniel Geddie 204 Churchill Dr.	Fayetteville
Monroe, Mrs. Edwin Wall 215 Library St.	Greenville
Monroe, Mrs. John Howard 236 Plymouth Ave.	Winston-Salem
Monroe, Mrs. Lance Truman Burrage Rd.	Concord
Montgomery, Mrs. John Christian, Sr. 1532 Queens Rd.	Charlotte
Montgomery, Mrs. John Christian, Jr. 2017 Radcliffe Ave.	Charlotte
Montgomery, Mrs. Wayne Swope 55 Sunset Parkway	Asheville
Montrose, Mrs. Frank J. 186 Hamilton Road	Chapel Hill
Moon, Mrs. Richard Young 32 Cedarciff Rd.	Asheville
Moore, Mrs. Burmah Dixon McAdenville Road	Mount Holly
Moore, Mrs. Davis Lee 503 E. 5th St.	Greenville
Moore, Mrs. D. Forrest Box 136	Shelby
Moore, Mrs. Edward Eugene 32 Fairway Rd.	Asheville
Moore, Mrs. Horace Greeley, Jr. 2905 Harvard Dr.	Wilmington
Moore, Mrs. James LeGrant 2513 Colton Place	Raleigh
Moore, Mrs. John Andrew 1513 Independence Rd.	Greensboro
Moore, Mrs. Julian Alison 34 Hilltop Rd.	Asheville
Moore, Mrs. Laurie Walker 1107 Front St.	Beaufort
Moore, Mrs. Ralph Bryan 1339 Hawthorne Rd.	Wilmington
Moore, Mrs. Robert Alexander 2415 Warwick Rd.	Winston-Salem
Moore, Mrs. Robert Alexander, Jr. 605 Jennings Drive	Wilmington
Moore, Mrs. Robert Ashe 1734 Queens Rd., W.	Charlotte
Moore, Mrs. Robert Love 311 W. Washington St.	Bessemer City
Moore, Mrs. William Donald	Coats
Moore, Mrs. William Locke 616 Myers Lane	Greensboro
Moorefield, Mrs. Robert Hoyle 203 East E St.	Kannapolis
Mordecai, Mrs. Alfred 806 S. Hawthorne Rd.	Winston-Salem
Morehead, Mrs. Robert Page 1051 Arbor Rd.	Winston-Salem
Morey, Mrs. Milton B. 1109 Arendell St.	Morehead City
Morgan, Mrs. Burnice Earl 2 Cedarciff Rd.	Asheville
Morgan, Mrs. Charles Hermann 1408 S. York St.	Gastonia
Morgan, Mrs. Grady Alexander 1 Cambridge Rd.	Asheville
Morris, Mrs. Donald Shank 2398 Warwick Rd.	Winston-Salem
Morris, Mrs. James Francis 803 S. Madison Ave.	Goldsboro
Morris, Mrs. John Watson 2410 Evans St.	Morehead City
Morris, Mrs. Leslie Morgan 1122 S. Edgemont Ave.	Gastonia
Morris, Mrs. Marshal Glenn, Jr. 3700 Starmount Dr.	Greensboro
Morris, Mrs. Rae Henderson 67 Louise Ave.	Concord
Morrison, Mrs. Robert Holcombe 331 Fairfield Rd.	Fayetteville
Morrison, Mrs. Roger William 65 Sunset Parkway	Asheville
Morton, Mrs. Leslie B. Jefferson Drive	Greenville
Morton, Mrs. L. Thomas 3812 Abingdon Rd.	Charlotte
Moss, Mrs. Paul	Hudson
Mullen, Mrs. Malcolm Preston 1813 W. Nash St.	Wilson
Mundorf, Mrs. George 3919 Abingdon Dr.	Charlotte
Murchison, Mrs. David Reid 315 S. Third St.	Wilmington
Murphy, Mrs. Gibbons Westbrook 22 Hampstead Rd.	Asheville

Murphy, Mrs. Thomas Lynch 409 Mocksville Ave.	Salisbury	McGavran, Mrs. Edward G. 798 Greenwood Rd.	Chapel Hill
Myers, Mrs. Alonzo Harrison 125 Fenton Place	Charlotte	McGee, Mrs. Julian Murrill 811 N. Elm St.	Greensboro
Myers, Mrs. Richard Thomas 600 Kingsbury Circle	Winston-Salem	McGill, Mrs. John Charles 506 Crescent Hill	Kings Mountain
McAdams, Mrs. Charles Rupert, Sr. 31 W. Woodrow Ave.	Belmont	McGill, Mrs. Kenneth Harwood 505 Crescent Hill	Kings Mountain
McAdams, Mrs. Charles Rupert, Jr. 6331 Sardis Rd.	Matthews	McGimsey, Mrs. James Franks, Jr. Edgewood St.	Morganton
McAllister, Mrs. Hugh Alexander Riverside Dr.	Lumberton	McGowan, Mrs. Claudius	Plymouth
McArn, Mrs. Hugh Munroe, 701 Anson Ave.	Laurinburg	McGowan, Mrs. Joseph Francis 303 Vanderbilt Rd.	Asheville
McBryde, Mrs. Angus Murdoch 3406 Westover Rd.	Durham	McGrath, Mrs. Frank Bernard 212 E. 17th St.	Lumberton
McCain, Mrs. John Lewis 1601 Highland	Wilson	McGuffin, Mrs. William Christian 52 Forest Rd.	Asheville
McCall, Mrs. William, Jr. 928 Goodwood Rd.	Winston-Salem	McIntosh, Mrs. Henry Deane 2406 N. Duke St.	Durham
McCampbell, Mrs. Leon C. 907 Monroe St.	Roanoke Rapids	McKay, Mrs. Clinton Hull 4800 Howland Lane	Charlotte
McCarthy, Mrs. John Joseph N. C. Sanatorium	McCain	McKay, Mrs. John Archibald 312 Pinecrest Dr.	Fayetteville
McCarty, Mrs. Ralph Leeves 843 Hempstead Pl.	Charlotte	McKee, Mrs. John Sasser, Jr. Broughton Hospital	Morganton
McCaskill, Mrs. Lloyd	Maxton	McKee, Mrs. Lewis Middleton 3633 Hope Valley Rd.	Durham
McClees, Mrs. Edward Count	Elm City	McKeel, Mrs. Millard Filmore 12 Bevlyn Dr.	Asheville
McClelland, Mrs. Joseph O.	Maxton	McKenzie, Mrs. Edward Burt 329 Summit Ave.	Salisbury
McConnell, Mrs. Harvey Russell 1119 Cumberland Ave.	Gastonia	McKenzie, Mrs. Wayland Nash N. Tenth St.	Albemarle
McCoy, Mrs. Edwin R. 221 N. Oak	Statesville	McKinnon, Mrs. George Edward 1836 Harris Road	Charlotte
McCoy, Mrs. Joseph Bennett, Jr. 2026 Sharon Lane	Charlotte	McKinnon, Mrs. William James 501 W. Wade St.	Wadesboro
McCracken, Mrs. Jesse William 411 College Road	Guilford College	McLain, Mrs. Bill Reid Box 328	Troutman
McCracken, Mrs. Joseph Pickett Route 1, Box 250-1	Durham	McLaurin, Mrs. Daniel Archie 1202 Poplar Ave.	Garner
McCutcheon, Mrs. William B. 507 Watts St.	Durham	McLean, Mrs. Ewen Kennedy 1110 Queens Rd., W.	Charlotte
McCutcheon, Mrs. William B., Jr. 1429 Pennsylvania Ave.	Durham	McLean, Mrs. James Wilton 217 DeVane St.	Fayetteville
McDonald, Mrs. Con T. 1106 S. Madison Ave.	Goldsboro	McLendon, Mrs. Walter Jones Box 116	Oakboro
McDonald, Mrs. Robert Lacy 207 Stone St.	Thomasville	McLeod, Mrs. John Calvin, Jr. 707 Pou St.	Goldsboro
McDowell, Mrs. Harold Clyde 200 Arbor Rd.	Winston-Salem	McLeod, Mrs. John Purl Uttley	Marshville
McDowell, Mrs. Roy Hendrix 20 Myrtle St.	Belmont	McLeod, Mrs. William Leslie 1504 Biltmore Dr.	Charlotte
McEachern, Mrs. Duncan Roland 1915 Hydrangea Pl.	Wilmington	McLeod, Mrs. William Louis S. Main St.	Norwood
McElrath, Mrs. Percy John 2736 Toxey Dr.	Raleigh	McManus, Mrs. Hugh Forrest, Jr. 3331 White Oak Rd.	Raleigh
McElwee, Mrs. Ross Simonton, Jr. 2817 Belvedere Ave.	Charlotte	McMillan, Mrs. Campbell W. Midland Way	Laurinburg
McFadyen, Mrs. Oscar Lee, Jr. 524 Valley Rd.	Fayetteville	McMillan, Mrs. James Fulford 907 Live Oak Pkwy.	Wilmington
McFalls, Mrs. Vernon Wendell 631 Westwood Ave.	High Point	McMillan, Mrs. Robert Lindsay 718 Arbor Rd.	Winston-Salem

McMillan, Mrs. Robert Monroe		
Ridgeview Road	Southern Pines	
McMillan, Mrs. Roscoe Drake		
414 S. Main St.	Red Springs	
McNeill, Mrs. Claude Ackle, Jr.		
121 Church St.	Elkin	
McNiel, Mrs. Thomas Lee		
Box 910	North Wilkesboro	
McPheeters, Mrs. Samuel Brown		
307 Linwood Ave.	Goldsboro	
McPherson, Mrs. Samuel Dace, Jr.		
29 Oak Dr.	Durham	
McQueen, Mrs. Robert Bruce, Jr.		
Box 529	Graham	
McRae, Mrs. James Thomas		
Hugh Chatham Memorial Hospital	Elkin	
McRee, Mrs. Jean Douglas		
808 Runnymede Rd.	Raleigh	
McWhorter, Mrs. Robert Ligon, Jr.		
Northeast Drive	Concord	
Nailling, Mrs. Richard Cabot		
85 St. Dunstons Rd.	Asheville	
Nalle, Mrs. Brodie C., Sr.		
906 S. College St.	Charlotte	
Nance, Mrs. Charles Lee		
1825 E. 7th St.	Charlotte	
Nance, Mrs. Frederick Lee, Jr.		
1009 Sprucewood	Kannapolis	
Nance, Mrs. John Wesley		
Coharie Drive	Clinton	
Nanzetta, Mrs. Leonard Anes		
2756 Windsor Rd.	Winston-Salem	
Nash, Mrs. Hoke Smith, Jr.		
7519 Candis Dr.	Charlotte	
Nash, Mrs. John Frederick		
Box 898	St. Pauls	
Nash, Mrs. Thomas Palmer, III		
306 E. Colonial	Elizabeth City	
Naumoff, Mrs. Phillip		
2320 Croydon Rd.	Charlotte	
Neal, Mrs. Charles B., III		
3806 Hillgrand Cr.	Durham	
Neal, Mrs. John William		
Main Street	Gibson	
Neal, Mrs. Joseph Walter		
1344 Brooks Ave.	Raleigh	
Neal, Mrs. Rutherford Douglas		
2532 Hampton Ave.	Charlotte	
Neeland, Mrs. Eugene Crawford		
1506 Grove St.	Wilson	
Neese, Mrs. Kenneth Earl		
611 Lancaster Ave.	Monroe	
Nelson, Mrs. Charlotte		
2205 Woodview Rd.	Kinston	
Nelson, Mrs. Sully	Ayden	
Nelson, Mrs. William Howell		
Box 328	Clinton	
Neville, Mrs. Cecil Howell	Scotland Neck	
Newell, Mrs. Ernest T.		
314 Cooper St.	Dobson	
Newell, Mrs. Leon Burns		
921 Berkeley Ave.	Charlotte	
Newman, Mrs. Glenn Carraway		
Coharie Dr.	Clinton	
Newman, Mrs. Harold Hastings, Jr.		
11 Oak Rd.	Salisbury	
Newsome, Mrs. Henry Clay		
Box 385	Pilot Mountain	
Newton, Mrs. Howard Lowell		
244 Hempstead Pl.	Charlotte	
Newton, Mrs. William King		
Finley Park	North Wilkesboro	
Niblock, Mrs. Franklin Chalmers, Jr.		
136 S. Union St.	Concord	
Nichols, Mrs. Austin Flint		
122 Academy St.	Roxboro	
Nichols, Mrs. Byron Atlee	Lexington	
Nichols, Mrs. Claude R., Jr.		
1114 Woodburn Ave.	Durham	
Nichols, Mrs. Rhodes Edmond, Jr.		
1626 University Dr.	Durham	
Nichols, Mrs. Thomas Rogers		
306 W. Union St.	Morganton	
Nicholson, Mrs. Henry Hale, Jr.		
635 Manning Drive	Charlotte	
Nicholson, Mrs. Neill Graham, Sr.		
303 Scotland Ave.	Rockingham	
Nicholson, Mrs. William McNeal		
824 Anderson St.	Durham	
Nifong, Mrs. Frank Miller	Clemmons	
Nisbet, Mrs. Douglas Health		
903 West Road	Kinston	
Noel, Mrs. George Thompson		
407 Knollwood Dr.	Kannapolis	
Nolan, Mrs. James Onslow		
300 Cannon Blvd.	Kannapolis	
Noland, Mrs. Robert Earl		
785 Arbor Rd.	Winston-Salem	
Norfleet, Mrs. Charles Millner, Jr.		
2566 Warwick Rd.	Winston-Salem	
Norment, Mrs. William Blount		
702 Woodland Dr.	Greensboro	
Norris, Mrs. Louis Jerome, Jr.	Morehead City	
Norton, Mrs. John W. Roy		
2129 Cowper Dr.	Raleigh	
Nowland, Mrs. Fagg Bernard		
Box 458	Pleasant Garden	
Nowlin, Mrs. George Preston		
946 Bromley Rd.	Charlotte	
O'Brien, Mrs. Paul Stevens		
2622 Bucknell Ave.	Charlotte	
O'Brien, Mrs. Thomas Francis, Jr.		
2611 Buena Vista Rd.	Winston-Salem	
Odom, Mrs. Guy Leary		
2812 Chelsea Cl., Hope Valley	Durham	
Odom, Mrs. Robert Edwin		
99 Evelyn Place	Asheville	
Odom, Mrs. Robert Taft		
1809 Virginia Rd.	Winston-Salem	
Oehlbeck, Mrs. Luther William F., Sr.		
11 8th Ave., N. E.	Hickory	
Oehlbeck, Mrs. Luther William F., Jr.		
Tremont Park	Lenoir	

Oelrich, Mrs. August M. 613 Palmer Dr.	Sanford	Papineau, Mrs. Alban	Plymouth
Offutt, Mrs. Vernon Delmus 910 Rountree St.	Kinston	Parham, Mrs. Asa Richmond 1045 Rockford Rd.	High Point
Ogburn, Mrs. Leon N. 1623 Canterbury Rd.	Raleigh	Parker, Mrs. Charles Council 114 Warren	Wilson
Ogburn, Mrs. Lundie Calvin 945 Kenleigh Cl.	Winston-Salem	Parker, Mrs. John Wesley, Jr.	Seaboard
Ogle, Mrs. Benjamin Caswell, Jr. 1218 E. Franklin Ave.	Gastonia	Parker, Mrs. Oscar Lee 706 College St.	Clinton
Oleen, Mrs. George Gerhard Medlin Rd.	Monroe	Parker, Mrs. Roy Turnage 111 Pinecrest Rd.	Durham
Olive, Mrs. Percy Wingate 1322 Woodland Dr.	Fayetteville	Parker, Mrs. Samuel Lester, Jr. 1202 Harding Ave.	Kinston
Oliver, Mrs. Jim Upton 2624 Fairview Rd.	Raleigh	Parker, Mrs. Shepherd Falkener Cleveland Springs	Shelby
Oliver, Mrs. Joseph Andrew Box 458	Rockwell	Parker, Mrs. Talbot Fort, Jr. 603 Prince Ave.	Goldsboro
O'Quinn, Mrs. Edward Nelson 1810 Princess St.	Wilmington	Parkinson, Mrs. Thomas William 417 Thomas Trail	Gastonia
Ormand, Mrs. John William 309 Lancaster Ave.	Monroe	Parks, Mrs. William Craig Emerywood Estates	High Point
Ormond, Mrs. Allison Lee 108 Sixth Ave., N. W.	Hickory	Parrish, Mrs. Alva E. 1317 Drumcliff Rd.	Winston-Salem
Outlaw, Mrs. Jackson Kent 808 Pee Dee Ave.	Albemarle	Parrott, Mrs. Frank Strong 322 Mocksville Ave.	Salisbury
Owen, Mrs. Charles Fletcher Maple Avenue	Asheboro	Parrott, Mrs. John Arendall 2206 Woodview Rd.	Kinston
Owen, Mrs. Duncan Shaw 201 Oakridge Ave.	Fayetteville	Parsons, Mrs. Lacy Jack, Jr. 2404 Rowland Ave.	Lumberton
Owen, Mrs. William Boyd	Waynesville	Parsons, Mrs. William Herbert	Ellerbe
Owens, Mrs. Francis Leroy Linden Road	Pinehurst	Paschal, Mrs. George Washington, Jr. 3334 Alamance Dr.	Raleigh
Owens, Mrs. John Fletcher 2631 Fairview Rd.	Raleigh	Paschold, Mrs. John Henry Park Lane	Albemarle
Owens, Mrs. Zack Doxey Taylor's Beach	Camden	Pate, Mrs. Archibald Hanes 110 S. Oleander Ave.	Goldsboro
Owsley, Mrs. Lawrence Hayes 5 Marilyn Lane	Chapel Hill	Pate, Mrs. James Lloyd	Fairmont
Pace, Mrs. Karl Busbee 404 Summit St.	Greenville	Pate, Mrs. Marion Butler, Jr.	St. Paul's
Pace, Mrs. Samuel Eugene Rt. 2, Box 52	Wilmington	Pate, Mrs. William Henry	Pikeville
Packard, Mrs. Douglas Richards P. O. Box 22	Clinton	Patrick, Mrs. Simmons Isler 2202 Greenbriar Rd.	Kinston
Padgett, Mrs. Charles King Cleveland Springs	Shelby	Patterson, Mrs. Carl Norris 3930 Plymouth Rd., Hope Valley	Durham
Padgett, Mrs. Philip Grover 605 N. Piedmont Ave.	Kings Mountain	Patterson, Mrs. Fred Geer 511 Senlac Rd.	Chapel Hill
Page, Mrs. Ernest Benjamin, Jr. 2207 Wheeler Rd.	Raleigh	Patterson, Mrs. Hubert Clifton 602 S. Columbia St.	Chapel Hill
Page, Mrs. George Dantzler 1855 Cassamia Pl.	Charlotte	Patterson, Mrs. Richard Bruce 1500 Drumcliffe Rd.	Winston-Salem
Page, Mrs. Harvey A. 1304 Kent St.	Durham	Patterson, Mrs. Thomas	Farmville
Painter, Mrs. William Watson 920 N. Main St.	Mooreville	Patton, Mrs. John Donald 56 Elk Mtn. Scenic Hwy.	Asheville
Palmer, Mrs. Yates Shuford Louise Rd.	Valdese	Patton, Mrs. William Hugh, Jr. 109 Terrace Pl.	Morganton
Palmes, Mrs. Wesley Calhoun, Jr. 440 Ridgeway Ave.	Statesville	Payne, Mrs. John A., III	Sunbury
		Peak, Mrs. Latham Conrad 409 Lafayette St.	Clinton
		Pearse, Mrs. Richard Lehmer 713 Anderson St.	Durham
		Pearson, Mrs. Hugh Oliver Box 26	Pinetops
		Pearson, Mrs. John Kent Pearson St.	Apex

Peck, Mrs. Harold Artemus 425 Dogwood Lane	Southern Pines	Pigford, Mrs. Robert Toms 155 Colonial Dr.	Wilmington
Pediaditakis, Mrs. Nicholas 340 Transylvania Ave.	Raleigh	Pishko, Mrs. Michael Thomas Midland Rd.	Pinehurst
Peele, Mrs. James Clarendon 1208 Perry Park Dr.	Kinston	Pittman, Mrs. Alfred Roland, Jr. 2304 Rowland Ave.	Lumberton
Peeler, Mrs. Forrest Edwards	Maiden	Pittman, Mrs. Dorn Carl Alamance Acres	Burlington
Pence, Mrs. J. J., Jr.	Wagram	Pittman, Mrs. Malory Alfred 905 Raleigh Rd.	Wilson
Pender, Mrs. John Robert III 601 Ashworth Ave.	Charlotte	Pittman, Mrs. William Austin 118 Stedman Ave	Fayetteville
Penick, Mrs. George Dial 215 Hillcrest Rd.	Raleigh	Pitts, Mrs. William Reid 429 Eastover Rd.	Charlotte
Pennington, Mrs. Glenn Walton 2200 Queens Road East	Charlotte	Piver, Mrs. James DeCamp Bayview Blvd.	Jacksonville
Perrin, Mrs. Thomas Samuel, Jr. 1761 Sterling Rd.	Charlotte	Piver, Mrs. William Crawford, Jr. Washington Park	Washington
Perritt, Mrs. John Olin 1327 Hawthorne Rd.	Wilmington	Pixley, Mrs. John Milton 1001 Wellington Rd.	Winston-Salem
Perry, Mrs. David Russell 1120 Iredell St.	Durham	Pixley, Mrs. Roland Theo 2018 Bucknell	Charlotte
Perry, Mrs. David Russell, Jr. 2824 Regency Dr.	Winston-Salem	Plonk, Mrs. George Webb 902 Crescent Circle	Kings Mountain
Perry, Mrs. Glenn Grey 702 Sunset Dr.	High Point	Plyler, Mrs. Cranford O., Jr. 504 Pontiac Dr.	Thomasville
Perry, Mrs. Henry Baker, Jr. 208 Homewood Dr.	Greensboro	Plyler, Mrs. Ralph Johnson 611 Mocksville Ave.	Salisbury
Perryman, Mrs. Olin Charles, Jr. 3312 Anderson Dr.	Winston-Salem	Podger, Mrs. Kenneth Arthur 217 E. Markham Ave.	Durham
Persons, Mrs. Elbert Lapsley 732 Anderson St.	Durham	Politano, Mrs. Victor H. 2128 Englewood Ave.	Durham
Peters, Mrs. August Richard, Jr. Washington Park	Washington	Pollock, Mrs. Frank Edward 2406 Elizabeth Ave.	Winston-Salem
Peters, Mrs. W. A., Sr. 206 South Road St.	Elizabeth City	Pollock, Mrs. Raymond 204 Hillcrest Rd.	New Bern
Peters, Mrs. William Anthony, Jr. 206 S. Road	Elizabeth City	Pool, Mrs. Bennette Baucom 2301 Buena Vista Rd.	Winston-Salem
Pettus, Mrs. William Henry, Jr. 2051 Cassamia Pl.	Charlotte	Poole, Mrs. Robert Franklin, Jr. 2501 Lewis Farm Rd.	Raleigh
Pfeiffer, Mrs. John B., Jr. 3414 Rugby Rd., Hope Valley	Durham	Pope, Mrs. Henry T. 304 E. 17th St.	Lumberton
Phelps, Mrs. James Solomon, Jr. 2400 Kenmore	Charlotte	Pope, Mrs. Robert Clyde 404 Monticello Dr.	Wilson
Phelps, Mrs. John Mahlon	Creswell	Porter, Mrs. Richard Allison Haywood Forest	Hendersonville
Phifer, Mrs. William Houston Lancaster Rd.	Monroe	Poston, Mrs. Robert Lewis	Winfall
Phillips, Mrs. Charles A. Speas 525 E. Massachusetts Ave.	Southern Pines	Poteat, Mrs. Hubert McNeill, Jr. 422 Church St.	Smithfield
Phillips, Mrs. David Lawrence	Spruce Pine	Pott, Mrs. Walter Hawks 102 Lakewood Dr.	Greenville
Phillips, Mrs. Ernest Nicholas Finley Park	North Wilkesboro	Powell, Mrs. Albert Henry 1632 University Dr.	Durham
Phillips, Mrs. Marvin W. Erwin Heights	Thomasville	Powell, Mrs. Charles James 1128 Magnolia Place	Wilmington
Phillips, Mrs. Robert D. Route 3	Smithfield	Powell, Mrs. Eppie Charles, Jr. 804 E. Park Ave.	Goldsboro
Phillips, Mrs. William Allen Route 3, Box 144	Wilmington	Powell, Mrs. Herman Sutton 1326 W. Franklin Ave.	Gastonia
Pickard, Mrs. Henry Mack 5002 Oleander Dr.	Wilmington	Powell, Mrs. Jack 1951 Haywood Rd.	Asheville
Pickrell, Mrs. Kenneth L. 3 Sylvan Rd.	Durham	Powell, Mrs. John D.	Mount Airy
Pierce, Mrs. Edwin 2618 Churchill Rd.	Raleigh		

Powers, Mrs. Frank Poydras 2529 White Oak Rd.	Raleigh	Raiford, Mrs. Fletcher Lindsay Haywood Forest	Hendersonville
Powers, Mrs. John Alfred 2035 Sherwood Rd.	Charlotte	Raiford, Mrs. Theodore Sidney 30 Cedarcliff Rd.	Asheville
Prather, Mrs. Fonzo Goff 131 Cambridge Rd.	Asheville	Rainey, Mrs. William Thomas, Sr. 1410 Ft. Bragg Rd.	Fayetteville
Pressly, Mrs. Claude Lowry 1863 Cassamia Pl.	Charlotte	Ramsaur, Mrs. Jackson Townsend 1011 Fairfield Dr.	Gastonia
Pressly, Mrs. David Lowry 576 Dogwood Rd.	Statesville	Raney, Mrs. Richard Beverly Farrington Rd.	Chapel Hill
Prevette, Mrs. John Edgar 514 S. First St.	Smithfield	Rankin, Mrs. Pressley Robinson, Jr.	Ellerbe
Price, Mrs. Harry Johnson 2830 Glenn Ave.	Winston-Salem	Rankin, Mrs. Richard Brandon, Sr. 33 Marsh St.	Concord
Prince, Mrs. George Edward 807 Townsend Ave.	Gastonia	Rankin, Mrs. Richard Brandon, Jr. 217 Circle Dr.	Concord
Printz, Mrs. Don Ralph 340 Midland Dr.	Asheville	Rankin, Mrs. Richard Eugene Mt. Holly-Belmont Rd.	Mt. Holly
Pritchard, Mrs. George Littleton 119 Church St.	Black Mountain	Rankin, Mrs. Rufus Pinkney, Jr. 622 Ashworth	Charlotte
Pritchett, Mrs. Newton George 1705 St. Mary's St.	Raleigh	Ranson, Mrs. John Lester, Sr. 620 Hermitage Ct.	Charlotte
Proctor, Mrs. James Thornton 428 Ridgefield Rd.	Chapel Hill	Ranson, Mrs. John Lester, Jr. 2059 Cassamia Place	Charlotte
Proctor, Mrs. Richard Culpepper 381 Westview Dr.	Winston-Salem	Ranson, Mrs. William Alexander 137 Huntley Place	Charlotte
Pruitt, Mrs. George Calhoun Lancaster Lane	Rockingham	Raper, Mrs. James Sidney 24 Cedarcliff Rd.	Asheville
Pugh, Mrs. Charles Harrison 610 S. Lee St.	Gastonia	Rapp, Mrs. Ira Hammes 1922 Beverly Dr.	Charlotte
Pugh, Mrs. Raeford Theodore Shady Banks	Washington	Rasberry, Mrs. Edwin Albert, Jr. 200 S. Deans St.	Wilson
Pugh, Mrs. Steve C.	Chadbourn	Rathbun, Mrs. Lewis Standish 46 Forest Rd.	Asheville
Pugh, Mrs. Vernon Watson 1618 Oberlin Rd.	Raleigh	Ravenel, Mrs. Samuel Fitzsimons 106 Fisher Park Circle	Greensboro
Pulliam, Mrs. Benjamin Eloth Robin Hood Rd.	Winston-Salem	Ray, Mrs. Frank L. 2021 Dilworth Rd., W.	Charlotte
Pumphrey, Mrs. Albert Franklin Box 627	Elizabethtown	Ray, Mrs. Ritz Clyde	West Jefferson
Purcell, Mrs. William Robert Elizabeth Drive	Laurinburg	Raymer, Mrs. James B. 3199 Kiple Place	Charlotte
Putney, Mrs. Robert Hubbard, Jr. Barnes Street	Elm City	Ree, Mrs. John Cochrane Riverside Dr.	Morganton
Queen, Mrs. Hugh Oscar Rollins Ave.	Hamlet	Reeves, Mrs. Jerome Lyda	Canton
Query, Mrs. Luke Walter, Jr. 525 Cliff Road	Asheboro	Reeves, Mrs. Robert James 920 Anderson St.	Durham
Query, Mrs. Robert Zimri, Jr. 1901 Matheson Ave.	Charlotte	Register, Mrs. John Francis 301 Rockford Rd.	Greensboro
Quickel, Mrs. John Cephas 1140 S. Edgemont Ave.	Gastonia	Reid, Mrs. James William	Lowell
Quinn, Mrs. Clifton Lee	LaGrange	Reid, Mrs. Ralph Conner	Pineville
Rabil, Mrs. William Edmond 1775 Buena Vista Rd.	Winston-Salem	Reid, Mrs. Robert Leary 646 W. Park Dr.	Lincolnton
Rabold, Mrs. Bernard Louis Dogwood Hills	Newton	Reid, Mrs. William Joseph 2301 Danbury Rd.	Greensboro
Raby, Mrs. William Thomas 2121 Bucknell Ave.	Charlotte	Reinhardt, Mrs. James Franklin 803 Starmont Dr.	Durham
Rachlin, Mrs. Stanton A. Veteran's Hospital	Fayetteville	Rendleman, Mrs. David Atwell 1015 Holmes St.	Salisbury
		Reynolds, Mrs. Frank Russell 1210 Fairway Dr.	Wilmington
		Rhodes, Mrs. James Kent 3350 Alamance Dr.	Raleigh
		Rhodes, Mrs. John Sloan 2704 Vanderbilt Ave.	Raleigh

Rhyne, Mrs. Sam Albertus 632 Greenway Dr.	Statesville	Robinson, Mrs. Charles Wilson 1114 Belgrave Pl.	Charlotte
Ribet, Mrs. James Ernest Rutherford College	Rutherford College	Robinson, Mrs. James Elbert 2701 Buena Vista Rd.	Winston-Salem
Rice, Mrs. A. Douglas 1515 Ruffin St.	Durham	Robinson, Mrs. James Thomas, Jr. 908 Sherwood Dr.	High Point
Rice, Mrs. Reed P. Kenmore Road	Chapel Hill	Rodler, Mrs. Dankwart E. H. 1312 National Ave.	New Bern
Rice, Mrs. William T. 318 Mocksville Ave.	Salisbury	Rodman, Mrs. Clark Riverside	Washington
Richards, Mrs. Ben Richard	Mocksville	Rodman, Mrs. Olzie Clark 519 W. Main St.	Washington
Richards, Mrs. Robert D.	Rock Ridge	Rogers, Mrs. Arthur Merriam 2115 Pinewood Cl.	Charlotte
Richardson, Mrs. Ernest Christopher, Jr. 1606 Lucerne Way	New Bern	Rogers, Mrs. Max Pritchard 1112 Wynnewood Ave.	High Point
Richardson, Mrs. James Justis Prince St.	Laurinburg	Romeo, Mrs. Bruno Joseph Laurel Park	Hendersonville
Richardson, Mrs. William Perry Box 758	Chapel Hill	Romm, Mrs. William Henry Puddin' Ridge	Moyock
Riddle, Mrs. Harry Duff 619 W. Hillcrest Ave.	Gastonia	Rose, Mrs. Abraham Hewitt, Jr. 723 Lake Boone Trail	Raleigh
Ridge, Mrs. Clyde Franklin 609 Colonial Dr.	High Point	Rose, Mrs. Ira Woodall, Jr. 1319 Canterbury Rd.	Raleigh
Riggs, Mrs. Millard McAdoo 609 W. Union St.	Morganton	Rose, Mrs. James William	Pikeville
Riley, Mrs. William Allen 617 Brent St.	Winston-Salem	Ross, Mrs. Donald MacConnell 510 Fountain Pl.	Burlington
Riley, Mrs. William J. 222 N. Gate Road	Newton	Ross, Mrs. Joseph Alderman 1005 Pee Dee Ave.	Albemarle
Rippy, Mrs. William Dennis 617 N. Sellars Mill Rd.	Burlington	Ross, Mrs. Otho Bescent, Sr. 2424 Selwyn Ave.	Charlotte
Roach, Mrs. Leonard Hunter 25 Sunset Parkway	Asheville	Ross, Mrs. Otho Bescent, Jr. 680 Llewellyn Pl.	Charlotte
Roach, Mrs. Robert Burchell 520 Westview St.	Lenoir	Ross, Mrs. Thomas E. 107 Anson Ave.	Rockingham
Robbins, Mrs. Grover Jay 3718 Reynolda Rd.	Winston-Salem	Ross, Mrs. Willis Richard 736 E. Oakwood Ave.	Albemarle
Robbins, Mrs. Jack Guyes 1207 Woodburn Rd.	Durham	Rosser, Mrs. John Hays 821 Wendover Rd.	Statesville
Roberts, Mrs. Bennett Watson 1503 W. Pettigrew St.	Durham	Roth, Mrs. O. Ralph 2900 Idlewood Circle	Charlotte
Roberts, Mrs. Louis Carroll 3950 Plymouth Rd.	Durham	Rousseau, Mrs. James Parks 808 Oaklawn Ave.	Winston-Salem
Roberts, Mrs. Rufus Winston 2727 Canterbury Trail	Winston-Salem	Rowe, Mrs. Charles Roy, Jr. 633 Margaret Rd.	Statesville
Roberts, Mrs. William McKinley Babington Heights	Gastonia	Royal, Mrs. Benjamin Franklin	Morehead City
Robertson, Mrs. Carroll Bracey	Jackson	Royal, Mrs. Donnie Martin Box 156	Salemburg
Robertson, Mrs. Charles Gurney, Jr. 540 Country Club Dr.	Mt. Airy	Royster, Mrs. Chauncey Lake 2607 Fairview Rd.	Raleigh
Robertson, Mrs. Edwin Mason 1534 Hermitage Court	Durham	Royster, Mrs. James Dan Box 68	Benson
Robertson, Mrs. John Kenneth	Pembroke	Ruark, Mrs. Robert James 3132 Sussex Rd.	Raleigh
Robertson, Mrs. John Newton, Sr. 807 Hay St.	Fayetteville	Rubin, Mrs. Adrian Stevens 104 Nutbush Rd., East	Greensboro
Robertson, Mrs. Leon Whitfield 401 Shady Circle Dr.	Rocky Mount	Ruffin, Mrs. David Winston Pink Hill	Pink Hill
Robertson, Mrs. Lloyd Harvey 4 North Road	Salisbury	Ruffin, Mrs. Julian Meade 816 Anderson St.	Durham
Robertson, Mrs. Logan Thomas 27 Fairmont Rd.	Asheville	Rundles, Mrs. Ralph Wayne 132 Pinecrest Rd.	Durham
Robicsek, Mrs. Francis 1239 Salem Dr.	Charlotte		

Russell, Mrs. Phillip Everitt 4 Deerfield Rd.	Asheville	Scott, Mrs. Alan Fulton 1132 Mocksville Ave.	Salisbury
Russell, Mrs. William Marler 1 Lone Pine Rd.	Asheville	Scott, Mrs. Peter Somers Route 2	Burlington
Ryburn, Mrs. Samuel Benjamin 1133 W. Nash St.	Wilson	Scott, Mrs. Samuel Floyd Route 2	Burlington
Sadler, Mrs. Ralph Colvert 106 S. Madison St.	Whiteville	Scroggin, Mrs. John B.	Drexel
Saleeby, Mrs. Richard George, Jr. 2307 Churchill Rd.	Raleigh	Seagle, Mrs. Lee M., Jr. 125 1st Ave., S. E.	Hickory
Salle, Mrs. George Fredric Washington Park	Washington	Seavy, Mrs. Paul W. 415 Carolina Circle	Durham
Salter, Mrs. Theodore	Beaufort	Sedwitz, Mrs. J. Lee Wendell-Zebulon Clinic	Wendell
Salters, Mrs. Frederic Hay 1103 Riverside	Elizabeth City	Seear, Mrs. Torben 938 Paramount Circle	Gastonia
Sample, Mrs. Robert Cannon Dana Rd.	Hendersonville	Seigman, Mrs. Edwin Lincoln Box 105 Bunn Drive	Rocky Mount
Sams, Mrs. William Albert	Marshall	Selby, Mrs. William Elledge 1126 Belgrave Place	Charlotte
Sanders, Mrs. Lee Hyman 2502 Anderson Dr.	Raleigh	Semans, Mrs. James Hustead 1415 Bivins St.	Durham
Sandy, Mrs. Robert E. Honey Pod Farm	Washington	Senior, Mrs. Robert Joseph 228 Hayes Rd.	Chapel Hill
Sanger, Mrs. Paul Weldon 1813 Providence Rd.	Charlotte	Senter, Mrs. William Jeffress 2330 Churchill Rd.	Raleigh
Santos, Mrs. Juan J. 212 Pennsylvania Ave.	Winston-Salem	Sessions, Mrs. John Turner, Jr. 701 Morgan Creek Rd.	Chapel Hill
Sapp, Mrs. Oscar L., III Box 1108, May Court	Chapel Hill	Setnor, Mrs. Stanford S. 4632 Ramsey St.	Fayetteville
Sardi, Mrs. Carl Anthony 508 Willowbrook Dr.	Greensboro	Severn, Mrs. Henry Doeller 4 Pine Tree Rd.	Asheville
Sargeant, Mrs. Angus Gus 2060 Gordon Rd.	High Point	Shackelford, Mrs. Robert Hilliard 201 W. Pollock St.	Mt. Olive
Sasser, Mrs. Patrick H. 108 S. Andrews Ave.	Goldsboro	Shackleford, Mrs. Ernest Dabney, Jr. 705 William Ave.	Asheboro
Saunders, Mrs. Charles Lawrence, Jr. 523 Wildwood Lane	Burlington	Shafer, Mrs. Irving Everett, Sr. 230 W. Thomas St.	Salisbury
Saunders, Mrs. John Turner 29 Maywood Rd.	Asheville	Shafer, Mrs. Irving Everett, Jr. 618 Margaret Dr.	Statesville
Saunders, Mrs. Stanley Stewart 1322 Greenway Dr.	High Point	Shaffner, Mrs. Louis deSchweinitz 818 Sylvan Rd.	Winston-Salem
Savage, Mrs. Robert Thomas 385 Plymouth	Winston-Salem	Shaia, Mrs. William Harry 2245 Mecklenburg	Charlotte
Sawyer, Mrs. Charles Glenn 812 Sylvan Rd.	Winston-Salem	Shannon, Mrs. George Ward 208 Moore Ave.	Rockingham
Sawyer, Mrs. Logan Everett Ashe St.	Elizabeth City	Sharp, Mrs. Oliver Ledbetter 214 Country Club Dr.	Greensboro
Scarborough, Mrs. Charles Foster, Jr.	Star	Sharp, Mrs. William Thomas Veterans Hospital	Salisbury
Schafer, Mrs. Earl William Emerywood Estates	High Point	Sharpe, Mrs. Eugene Baxter 200 Patton Mountain Rd.	Asheville
Scherer, Mrs. Irvin George Box 23	Hamptonville	Sharpe, Mrs. Frank Alexander 111 E. Hendrix St.	Greensboro
Schlaseman, Mrs. Guy W. 3437 Rugby Road	Durham	Sharpe, Mrs. Walter E., Jr. P. O. Box 193	Lake Waccamaw
Schoenheit, Mrs. Edward William 25 Eastwood Rd.	Asheville	Shaver, Mrs. William Trantham 1105 Pee Dee Ave.	Albemarle
Schoonover, Mrs. R. A. 2107 Lafayette Ave.	Greensboro	Shaw, Mrs. John Alexander 5948 Bragg Blvd.	Fayetteville
Schultz, Mrs. Everette H. 532 Dogwood Drive	Chapel Hill	Shaw, Mrs. Lloyd Roosevelt 222 N. Oak St.	Statesville
Schweizer, Mrs. Donald Conrad 903 Dover Rd.	Greensboro		

Shearin, Mrs. W. Thad, Jr. 1163 Carolina Ave., N.	Carolina Beach	Sipple, Mrs. Edward Knollwood	Southern Pines
Shelburne, Mrs. Palmer Augustine 2311 Princess Ann St.	Greensboro	Siske, Mrs. Grady Cornell	Pleasant Garden
Shelburne, Mrs. Robert C. 159 Lakeshore Dr.	Asheville	Skeen, Mrs. Leo Brown 812 N. Main St.	Mooresville
Sherrill, Mrs. Harry Blake Fifth Street	Swansboro	Slate, Mrs. Francis Wesley Box 407	Mocksville
Sherrill, Mrs. John Franklin, Jr. 3326 Rugby Rd., Hope Valley	Durham	Slate, Mrs. John Samuel 1215 W. Fourth St.	Winston-Salem
Shingleton, Mrs. William Warner 3866 Summerset Dr.	Durham	Slate, Mrs. Joseph Esmond 1051 Rockford Rd.	High Point
Shinn, Mrs. George Clyde	China Grove	Slate, Mrs. Marvin Longworth 807 Brantley Circle	High Point
Shipley, Mrs. John LeRoy 309 W. Church	Elizabeth City	Sledge, Mrs. John Burton 135 Orchard Circle	Charlotte
Shirey, Mrs. John Luther Leicester Rd., Route 4	Asheville	Sloan, Mrs. Allen Barry 745 N. Main St.	Mooresville
Shook, Mrs. Earl Lester, Jr. 32 Sunset Terr.	Asheville	Sloan, Mrs. David Bryan 1116 Magnolia Pl.	Wilmington
Shuford, Mrs. Jacob Harrison 1007 14th Ave., N. W.	Hickory	Sluder, Mrs. Fletcher Sumpter Chunns Cove Rd.	Asheville
Shull, Mrs. William Henry 2830 Belvedere Ave.	Charlotte	Sluder, Mrs. Harold Miles 2245 Roswell Ave.	Charlotte
Sickle, Mrs. G. William 461 N. Tenth St.	Albemarle	Smart, Mrs. Gardner Ford 58 St. Dunstons Rd.	Asheville
Sieker, Mrs. Herbert Otto 204 Forestwood Dr.	Durham	Smedberg, Mrs. George Andrew 517 Circle Drive	Burlington
Sikes, Mrs. Charles Henry 3930 Madison Ave.	Greensboro	Smeltzer, Mrs. Dave Harvey Route 4, Box 380-K	Matthews
Sikes, Mrs. Walter Allen State Hospital	Raleigh	Smerznak, Mrs. John Joseph 209 E. Corban St.	Concord
Silverman, Mrs. Albert Jack 2433 Wrightwood Ave.	Durham	Smethie, Mrs. William Massie 831 Burns St.	Wadesboro
Silverthorne, Mrs. Ray G. 1036 Market St.	Washington	Smith, Mrs. Albert Heyward, Jr.	Waynesville
Silverton, Mrs. George 502 W. 26th St.	Lumberton	Smith, Mrs. Alick T. 5306 Dorchester Rd.	Greensboro
Simmons, Mrs. J. Dale 813 Rockford St.	Mt. Airy	Smith, Mrs. Allen D. 2801 Fairview Rd.	Durham
Simons, Mrs. Charles Ernest 614 Raleigh Rd.	Wilson	Smith, Mrs. Anderson Jones	Black Creek
Simpson, Mrs. Paul Ervin 2612 Dover Rd.	Raleigh	Smith, Mrs. A. Parker 800 Lionel St.	Goldsboro
Simpson, Mrs. Thomas E. Box 327	Walnut Cove	Smith, Mrs. Claiborne Thweat 209 Hickory St.	Rocky Mount
Simpson, Mrs. Thomas William 763 Barnsdale Rd.	Winston-Salem	Smith, Mrs. David Tillerson 3437 Dover Rd.	Durham
Sinclair, Mrs. Carter Ashton 353 8th St., N. W.	Hickory	Smith, Mrs. Everette Duane Box 1360	Candler
Sinclair, Mrs. Louis Gordon 3309 White Oak Rd.	Raleigh	Smith, Mrs. Foyell Pennington Carolina & Kildee	Lexington
Sinclair, Mrs. Robey Thomas, Jr. 155 Renovah Circle	Wilmington	Smith, Mrs. Franklin Carlton 2219 Radcliffe Ave.	Charlotte
Singletary, Mrs. George Currie Box 246	Clarkton	Smith, Mrs. Harold Benjamin 106 Finley St.	North Wilkesboro
Singletary, Mrs. Henry Pate 3008 Wayne Dr.	Wilmington	Smith, Mrs. J. Lawton 2714 McDowell St.	Durham
Singletary, Mrs. William Vance 32 Beverly Drive	Durham	Smith, Mrs. James Jefcoat 1204 E. 3rd St.	Greenville
Sink, Mrs. Charles Shelton Sunset Dr.	North Wilkesboro	Smith, Mrs. James McNeill	Rowland
Sinnett, Mrs. John Franklin 512 W. 8th St.	Newton	Smith, Mrs. Jay Leland, Jr. 225 N. Rowan Ave.	Spencer

Smith, Mrs. J. Graham, Jr.		
1118 Woodburn Rd.	Durham	
Smith, Mrs. John Goodrich		
200 Wildwood Ave.	Rocky Mount	
Smith, Mrs. Joseph		
1303 E. 5th St.	Greenville	
Smith, Mrs. Joseph Elmer	Windsor	
Smith, Mrs. Joseph Pinkey		
935 Paramount Circle	Gastonia	
Smith, Mrs. Lester L., Jr.		
158 Cherokee Rd.	Charlotte	
Smith, Mrs. Melvin Bowman	Ramseur	
Smith, Mrs. Opie Norris		
107 W. Avondale	Greensboro	
Smith, Mrs. Roy Meadows		
206 Homewood Dr.	Greensboro	
Smith, Mrs. Sidney		
905 Williamson Dr.	Raleigh	
Smith, Mrs. Slade Alvah		
308 N. Madison St.	Whiteville	
Smith, Mrs. William Alexander		
2310 White Oak Rd.	Raleigh	
Smith, Mrs. William G., Sr.		
224 Colonial Drive	Thomasville	
Smith, Mrs. William Mitchell		
516 Grand Blvd.	Boone	
Snipes, Mrs. Richard Dean		
312 Valley Rd.	Fayetteville	
Snow, Mrs. Leo Beman		
140 Pearson Dr.	Morganton	
Sohmer, Mrs. Marcus Frank, Jr.		
811 Arbor Rd.	Winston-Salem	
Sommers, Mrs. James E.		
Sourwood Drive	Chapel Hill	
Sommerville, Mrs. Lewis Cass		
Route 3, Box 1402	Candler	
Sorrell, Mrs. Furman Yates	Lilesville	
Sowers, Mrs. Roy Gerodd		
Brinn Drive	Sanford	
Spangler, Mrs. Harold Benjamin		
1315 Surry Dr.	Greensboro	
Spargo, Mrs. John Prichard	Cooleemee	
Sparrow, Mrs. Harry Ward		
108 Nutbush, East	Greensboro	
Spaugh, Mrs. Earle		
150 McAlway	Charlotte	
Speas, Mrs. Dallas Cleaborn		
2598 Reynolda Rd.	Winston-Salem	
Speas, Mrs. William Paul, Sr.		
437 Springdale Ave.	Winston-Salem	
Speas, Mrs. William Paul, Jr.		
2915 Country Club Rd.	Winston-Salem	
Spencer, Mrs. Allen		
506 Grove St.	Salisbury	
Spencer, Mrs. Frederick Brunell, Jr.		
803 Confederate Ave.	Salisbury	
Spencer, Mrs. William Gear, Jr.		
301 West End Ave.	Wilson	
Spigner, Mrs. Prescott Bush		
1107 Perry St.	Kinston	
Spillman, Mrs. Louis Cromwell, Jr.		
Dodson Mill Rd.	Pilot Mountain	
Spitznagel, Mrs. John		
515 Morgan Creek Rd.	Chapel Hill	
Sprunt, Mrs. William Hutchinson, Jr.		
1931 Virginia Rd.	Winston-Salem	
Sprunt, Mrs. William Hutchinson, III		
2320 Ridge Rd.	Raleigh	
Spudis, Mrs. Edward Verhines		
Apt. 9 Wake Forest College	Winston-Salem	
Spurr, Mrs. Charles Lewis		
1845 Buena Vista Rd.	Winston-Salem	
Squires, Mrs. Claude Babbington		
2128 Malvern Rd.	Charlotte	
Stafford, Mrs. William R., Jr.		
3400 Lennox Court	Greensboro	
Stallings, Mrs. Davey Bingham		
Route 1	Clemmons	
Stallings, Mrs. T. Lacy		
2404 White Oak Rd.	Raleigh	
Stallings, Mrs. Thomas Frank		
Washington Park	Washington	
Stanfield, Mrs. Elwin		
516 Country Club Dr.	Fayetteville	
Stanley, Mrs. Sherburn Moore	Enka	
Stanton, Mrs. Allie McLeod	Plymouth	
Starling, Mrs. Charles Ray		
2128 Andover Rd.	Charlotte	
Starling, Mrs. Howard Montford		
123 Pine Valley Rd.	Winston-Salem	
Starling, Mrs. Wyman Plato	Roseboro	
Starr, Mrs. Henry Frank, Sr.		
Lark Drive, Sedegefield	Greensboro	
Steen, Mrs. Claude Earl		
Route 2	Candler	
Stegall, Mrs. John Thomas		
327 Oakwood Dr.	Statesville	
Steiger, Mrs. Howard Paul		
1927 Sharon Lane	Charlotte	
Stephen, Mrs. Charles Ronald		
1608 University Dr.	Durham	
Stephens, Mrs. Freeman Irby		
54 Sunset Parkway	Asheville	
Stephens, Mrs. Richard Samuel		
306 N. Ridge Dr.	Kannapolis	
Stephenson, Mrs. Bennett Edward	Rich Square	
Stephenson, Mrs. Henry L., Jr.		
Van Norden Street	Washington	
Sternbergh, Mrs. Waldemar C. A.		
1217 Belgrave Pl.	Charlotte	
Stevens, Mrs. Hamilton Wright, Jr.		
90 Grovewood Rd.	Asheville	
Stevens, Mrs. Joseph Blackburn		
102 Irving Park Court	Greensboro	
Stewart, Mrs. Albert, Jr.		
1507 Morganton Rd.	Fayetteville	
Stewart, Mrs. Daniel Niven, Jr.		
925 4th Ave., N. W.	Hickory	
Stewart, Mrs. Francis Asbury		
333 Bambury Rd.	Winston-Salem	
Stewart, Mrs. John Reagan		
515 Walnut St.	Statesville	

Stewart, Mrs. Roy Allen 422 W. 9th St.	Newton	Summerlin, Mrs. Harry 218 E. Church St.	Laurinburg
Stiff, Mrs. Audrey Olin 335 Bouchard St.	Valdese	Summerlin, Mrs. Robert L.	Dublin
Stines, Mrs. Ernest Harrison	Canton	Sumner, Mrs. Emmett Ashworth 502 Overbrook Dr.	High Point
Stirewalt, Mrs. Neale Summers 703 E. Lexington Ave.	High Point	Suther, Mrs. Thomas C. Box 248	Knightdale
Stockdale, Mrs. Wayne Harrop Crescent Drive	Smithfield	Sutter, Mrs. Renzo Humberto 401 Main St.	Mt. Airy
Stocker, Mrs. Frederick W. 1124 Forest Hills Blvd.	Durham	Sutton, Mrs. Homer George, Jr. 3700 Reynolda Rd.	Winston-Salem
Stockton, Mrs. Irving Richard 919 Tatum Dr.	New Bern	Swain, Mrs. Wingate E. Washington Park	Washington
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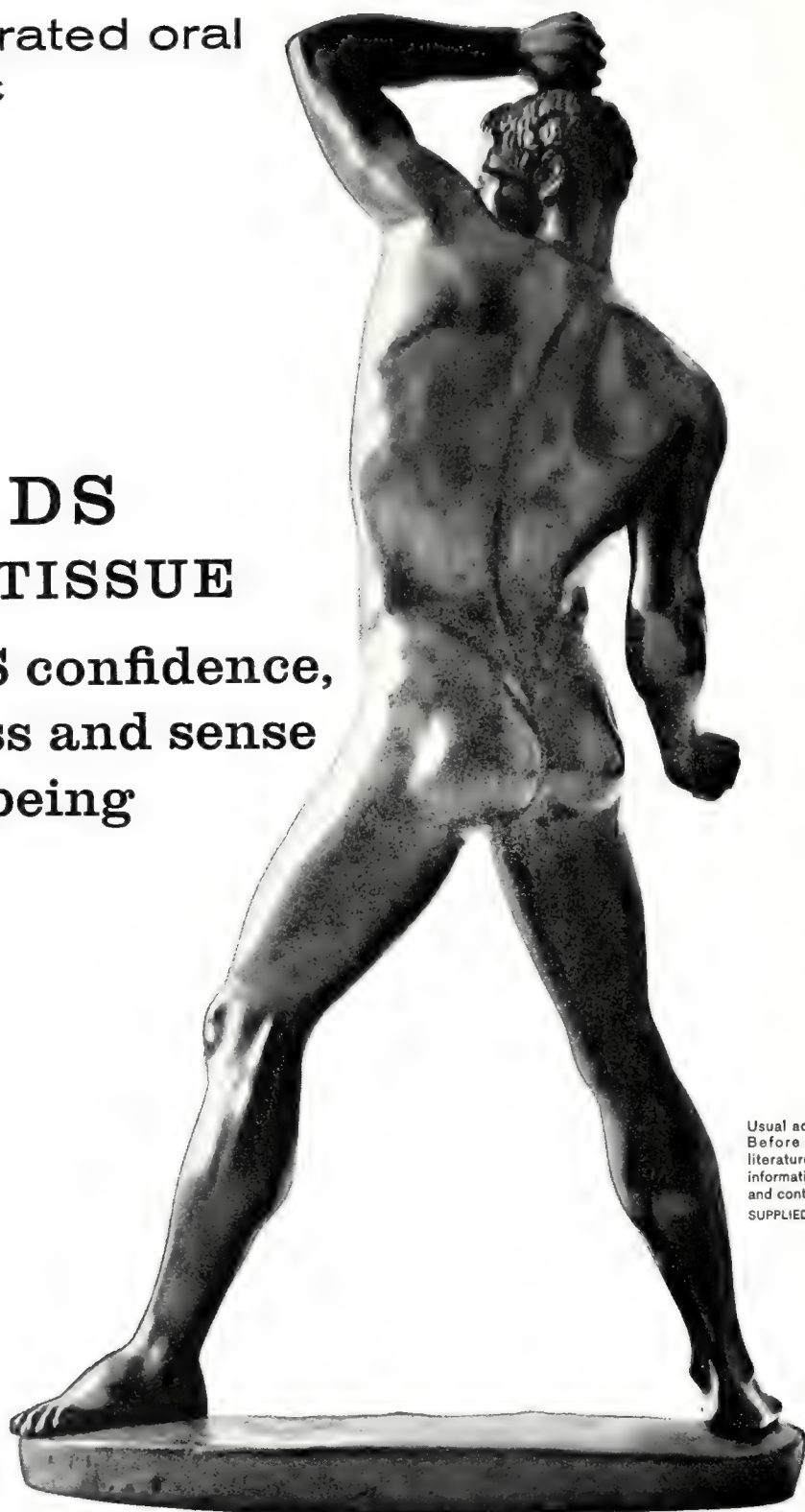
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Symposium on Cancer of the Breast

A Radiotherapist's Viewpoint

PATRICK J. CAVANAUGH, M.D.*

DURHAM

A patient with breast cancer comes to the radiotherapist at one of three fairly well defined points in the evolution of the disease: (1) immediately following radical surgery; (2) later, when recurrence or spread become evident; (3) when the disease is grossly inoperable or far advanced in the first place. In each of these cases we are asked if we can do anything for the patient: to provide palliation in the advanced and recurrent cases, and some increased chance of cure in those patients who have had a radical mastectomy. There is no particular controversy about the palliative effect of radiation in this disease. Recurrent lesions on the chest wall can be sterilized, ulcerated inoperable primary tumors can be healed, bone metastases can be enduringly affected, and comfortable life can itself be significantly prolonged. The difficult question to answer at this time is whether radiation has a significant role in the cure of patients. Within this question are many questions, some of which have been answered, others of which have been explored to the point where we can see that an answer is forthcoming.

Radioresistance

The first and most basic question revolves about the radioresistance of the disease. Although breast cancers vary individually in radiosensitivity, most of them behave as do

other adenocarcinomas and are found to lie toward the resistant end of the radiobiologic spectrum. After a moderate dose of 2000 roentgens a lymphoma would show no microscopic residue, a squamous carcinoma would be conspicuously damaged, but mammary carcinoma may appear morphologically intact. Almost twice the dosage is required to produce significant damage¹. Fortunately these rather resistant tumors exist in an even less sensitive normal tissue stroma and can be given large doses of radiation with excellent recovery of normal tissue. Techniques for doing so have evolved rather slowly, and the accumulation of patients without advanced disease has been slow indeed.

Radiotherapy Versus Surgery

The next most important question is whether radiation alone can cure any patients. Such information is understandably scarce. Baclesse² treated 310 patients radiologically and obtained a five-year survival rate of 50 per cent when nodes were palpable, and a ten-year survival rate of 15 per cent in the overall group. Many of these patients had clinical evidence of persistent but apparently unaggressive cancer.

In comparing these figures to those pertaining to untreated patients, one finds that up to 20 per cent of the untreated group survive five years and 5 per cent survive 10 years³. Obviously a significant number of patients with breast cancer have biologically indolent disease, and appear to benefit from any treatment given, surgical as well

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as radiotherapeutic. At the other end of the scale are tumors which metastasize and progress rapidly regardless of treatment. In the intermediate group are the only patients who can concern us in a discussion of curative treatment.

Although radiation alone may cure some patients in this group, there is no evidence that it can compete with radical mastectomy in selected patients. Haagensen⁴ has shown that at least three fourths of his patients are alive at the end of five years if the tumor is confined to the breast, and that those with one or two small, low axillary nodes do almost as well. There is no evidence that radiation improves survival in this group. Patients with more extensive disease, though technically inoperable, show a marked drop in the survival rate (to 35 per cent), and it is in this group that the value of postoperative radiotherapy is most uncertain.

Radiotherapy with Surgery

Postoperative

Very few controlled studies have been completed, but it is difficult to ignore the evidence of Paterson's report on 703 consecutive patients⁵. These were assigned randomly to immediate postoperative treatment or observation. The observed group was treated only when recurrence appeared. Even though recurrences were noted earlier in the control group, there was no difference in five-year survival following treatment. This fact seemed to indicate that radiation following radical mastectomy might be justified only one-third as frequently if patients are not given routine postoperative treatment⁵.

It should be mentioned that "postoperative radiotherapy" is not a self-explanatory term. It may have either or both of two distinct aims as well as different technical means to achieve them: to treat (1) the surgical field in the chest wall and axilla, and (2) the peripheral nodes of the supraclavicular and internal mammary group.

When local lesions recur in the surgical field in no more than 10 to 15 per cent of patients, it seems illogical to submit 85 or 90 per cent of patients to the hazards of

this treatment without benefit. Treatment of the peripheral node areas finds justification in situations where these are frequently involved—namely, in medial or subareolar tumors, or when extensive axillary involvement is evident only on pathologic examination. The latter practice has been in vogue for some time, but only recently have controlled studies been initiated. As yet there is absolutely no evidence that this procedure contributes anything to the rate of cure associated with surgery.

Preoperative

With the advent of supervoltage radiation and its attendant skin-sparing effect has come a renewed interest in preoperative radiotherapy. It has been frequently observed that the more peripheral, actively dividing cells are more sensitive to radiation than those near the center of a tumor. Furthermore, normal tissue after a moderate dose of radiation accepts transplants less well than unirradiated tissue⁶. At least one extensive, well controlled study of this effect in breast cancer is currently under way.

Surgical Opinions on Therapy

In summary, there is as yet no convincing evidence that radiation improves the results of surgery in breast cancer. Perhaps the difficulties do not altogether lie with the radiotherapist, since it is evident that surgeons vary in what they consider operable cases, and indeed in what they consider to be proper surgery. It is logical to assume that the effect of our treatment depends to some extent upon what happens to the patient before she reaches us (85 to 90 per cent of all patients with breast cancer undergo radical mastectomy).

Surgical opinion on cancer of the breast seems to be evolving in three directions. First is the conservative school exemplified by Haagensen, whose figures indicate that radical mastectomy is for the few. His aim has been to apply this procedure to patients who can be cured, and he believes that its application to the others only does them harm⁷. By using rigid clinical criteria he reduced operability to 75 per cent. In

borderline cases he performed biopsies of the axillary apex, supraclavicular nodes, and internal mammary nodes and eliminated another 25 per cent. His five-year cure rate without palpable nodes is 84 per cent, and with small nodes 59 per cent.

Another school of thought advocates the so-called super-radical attack, with node dissection extended to the supraclavicular and internal mammary regions⁸. This approach has not found general acceptance and has been abandoned by some of its earliest proponents.

The third and most controversial approach has been the treatment of all patients by simple mastectomy and radiation. McWhirter reported 1882 consecutive cases with an absolute five-year survival rate in "operable" lesions of 42 per cent, and a 10-year survival rate of 25 per cent. When older patients are excluded, the survival rate among the remaining 1179 cases was 51 per cent for five years and 36 per cent for 10 years. The five-year survival rate in "operable" lesions was 58 per cent⁹, which compares favorably with 59 per cent for a group of surgical cases reported by Atkins. For locally advanced lesions, the survival rate was 30 per cent as compared with 16 per cent for surgery. The results appear comparable with those of surgery, but one is reluctant to rely on strict comparison of figures from different institutions since there are almost always significant differences in classification and staging. Rarely are two methods compared in the same institution.

A most interesting study was begun at the Radium Center in Copenhagen in 1951¹⁰. All patients with breast cancer were divided randomly into two groups, one receiving simple mastectomy and radical radiotherapy (McWhirter technique), the other being treated by "extended radical mastec-

tomy" without radiotherapy. The total number of patients available for study was 668. No significant difference in yearly survival was noted, and at five years 54 per cent of both groups were alive. When separated into the four clinical stages of Haagensen, no significant difference was found between the two groups. One patient was lost to follow-up. No conclusions can be drawn until the patients are followed 10 years.

Conclusion

In the final analysis not enough is known about the value of radiation in the curative treatment of breast cancer. We cannot decide what method or combination of methods is best. At this stage we can only point to moderate improvements and trends which suggest that radiation may have a more important role in the future.

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Endocrine Treatment of Breast Cancer

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and

G. S. DUGGER, M.D.

CHAPEL HILL

The vagaries of carcinoma of the breast are well known to all who have to treat the disease. From the weight of clinical and experimental evidence, the hormonal influence on the growth and development of breast cancer is apparent. That there are other factors, however, cannot be denied, and added together they constitute what is referred to as "host resistance." The degree of this resistance is reflected in the clinical course of a given tumor. Some are slow-growing, late-metastasizing, "the curable cancer"; others are rather aggressive, killing the host in a relatively short period of time.

The scope of this problem is indicated by the fact that more than 50 per cent of women with breast cancer have metastases when first seen (table 1).

Table 1

Incidence

Incidence of breast cancer (female)	72/100.00
Incidence of metastases on admission	$\pm 55\%$

Table 2 reflects the factor of host resistance in a different manner, showing that 15 per cent of patients will die of the disease after the traditional five-year survival

Table 2

Survival Rate

	Per Cent
Five years	± 40
Ten years	± 25

period. Table 3 shows this factor in yet another way. Of patients undergoing surgical division of the pituitary stalk, the duration of the disease prior to the time of operation was twice as long in the patients who benefited from the procedure than in those who did not¹.

It would seem, then, that the best index for prognosis and for selection of the appropriate palliative therapy rests upon clinical appraisal of the tumor-host relationship. It is on this concept that the following discussion is based.

Table 3

Comparison of Age and Duration of Disease in Patients Undergoing Surgical Division of Pituitary Stalk

	Average Age Years	Average Duration of Disease Months
Patients Benefited	54.8	79.4
Patients Not Benefited	49.2	37.2

Time does not allow consideration of all the endocrine modalities available. Table 4 is a summation, made some time ago, of the experience of several persons employing these various methods. Since then a retrospective comparison of adrenalectomy and hypophysectomy has been made². The response to the two procedures—defined as regression of tumor lasting six months or longer—was identical, occurring in 31 per cent of the patients. As we will point out later, a similar response can be expected from pituitary stalk division.

In a discussion of the hormonal treatment of breast cancer, the patients should logically be divided into pre- and postmenopausal groups. Here the postmenopausal state is not considered to begin until five years after the last menstrual period, except in cases of surgical castration where a few months are probably adequate for producing a truly postmenopausal state.

Premenopausal Cases

Table 5 is a suggested schedule for the premenopausal patient with metastatic breast cancer. Alterations from this schedule are frequent, and are governed by the behavior of the tumor and the patient.

The original work herein referred to was supported in part by grants from the Public Health Service and the American Cancer Society.

From the Department of Surgery, University of North Carolina School of Medicine, Chapel Hill.

Table 4

Results of Endocrine Therapy

Treatment	Status	No. of Cases	Objective Remissions Per Cent	Duration in Months	
				Mean	Median
Oophorectomy					
Pearson	Premen.	75	44	9	6.5
	Postmen.	21	10	--	--
Adrenalectomy					
Lipsett	(Prev. ooph.)	42	45	9	7
Huggins	(Prev. ooph.)	25	40	--	--
Adrenalectomy and oophorectomy					
Pearson	Postmen.	25	64	9+	--
Cade	Unknown	136	60	--	--
Galante	Postmen.	50	36	--	--
Hypophysectomy					
Olivecrona	All ages	197	55	17?	--
Pearson	All ages	41	51	--	--
Surgical isolation hypophysis	All ages	22	45	8.4	--
Androgen	All ages	416	21	7.5	4.5
Estrogen	Postmen.	381	38	8.0	4.5
Cortisone					
West	All ages	39	31	3.0	3.0
Prednisolone	All ages	--	18	--	--

Much has been written about the relative value of prophylactic versus therapeutic castration. There seems to be little convincing evidence that the procedure is of significant prophylactic value, though the papers of Treves³, Horsley⁴, and Rosenberg⁵ offer contrary evidence. Assuming some benefit from the earlier castration—which obviously is not striking—it cannot be ignored that the procedure destroys an extremely important guidepost to subsequent management—namely, the effect of oophorectomy upon *growing* metastases. That the response to subsequent hormonal therapy is in direct proportion to the response to castration has been a consistent observation by those advocating adrenal or pituitary ablation for the control of metastatic cancer.

This reason, coupled with the impossibility of predicting which tumor is going to fall into the chronic group, the period of observation recommended here seems logical. Palliation, usually by oophorectomy, is

begun only when there is *clinical* evidence that the disease is progressing. One can expect approximately 40 per cent of the patients to show a remission averaging 9 to 10 months in duration.

Frequently, by the patient's choice or for other reasons, testosterone may be submitted for castration, or used when the benefits of oophorectomy have been lost. Since only 20 to 25 per cent of the patients respond to androgens, we personally recommend them more and more rarely. It has been our policy to move from oophorectomy to surgical division of the pituitary stalk.

Postmenopausal Cases

In the postmenopausal patient (table 6), a similar period of observation is important—and for the same reasons. While the suggested program employs estrogens before division of the pituitary stalk, this sequence is not arbitrary. Frequently the stalk section is recommended initially, in accept-

Table 5**Management of the Premenopausal Patient**

1. Definitive therapy (generally radical mastectomy)
2. Period of observation
(Palliative therapy is begun only when there is CLINICAL evidence of progression of disease)
3. Oophorectomy
4. Androgens
5. Surgical division of pituitary stalk
6. Other modalities
 - a. Roentgen therapy
 - b. Chemotherapy
Nitrogen mustard derivatives, P₃₂, Antimetabolites
 - c. Pain relieving operations
 - d. Narcotics

ance of the fact that the hormone sensitivity of the host can only be implied by clinical evaluation of the course of the disease.

The other modalities listed here are not the subject of this report and will not be discussed here.

Division of the Pituitary Stalk

At North Carolina Memorial Hospital we have had only a brief experience with adrenalectomy, and none with total hypophysectomy; rather we prefer the surgical division of the pituitary stalk in patients with metastatic mammary carcinoma.

The operation was devised⁶ because of the expressed difficulty in achieving complete hypophysectomy, because of the mortality of the procedure (at that time about 10 per cent), and the suggestion from Luft's and Olivecrona's work⁷ that total removal of the gland is probably unnecessary to alter the hormonal status sufficiently to influence metastatic breast cancer.

Criteria for operability are as follows: (1) previous demonstration of, or a clinical history suggestive of, hormonal sensitivity; (2) the absence of hepatic, cerebral, and significant pulmonary metastases; (3) age under 65 years; and (4) reasonable surgical risk. We have occasionally recommended the operation as a desperate measure to control pain—with success in approximately 60 per cent of the attempts.

Technique

Briefly the operation is carried out

Table 6**Management of the Postmenopausal Patient**

1. Definitive therapy (generally radical mastectomy)
2. Period of observation
(Palliative therapy is begun only when there is CLINICAL evidence of progression of disease)
3. Estrogens
4. Surgical division of the pituitary stalk
(If under 65, no liver metastases, good operative risk)
5. Other modalities
 - a. Roentgen therapy
 - b. Chemotherapy
Nitrogen mustard derivatives, P₃₂, Antimetabolites
 - c. Pain relieving operations
 - d. Narcotics

through a transfrontal approach. The frontal lobes are allowed to fall back, aided by the removal of cerebrospinal fluid by way of a lumbar needle; the optic chiasm is exposed; the stalk is divided; and a plate of impervious material (formerly tantalum, now plastic) is fashioned to bridge the sella turcica, resting upon the anterior and posterior clinoid processes. The wound is then closed. Other than the time required by the routine opening and closing of a craniotomy wound, the actual operation consumes from 15 to 20 minutes. Prednisone in a dosage of 2.5 to 5.0 mg. daily, occasionally posterior pituitary extract, and less frequently thyroid extract are necessary as maintenance therapy postoperatively.

Results

Table 7 shows the results. To date, 35 patients have had the operation, 30 of which can be evaluated. Twelve, or 40 per cent, have achieved objective remission ranging

Table 7
Response to Therapy

	No. Patients
Objective improvement	12
No benefit ("Apparent arrest" is considered as "no benefit")	17
Percent responding	41.4

from 3 to 44 months, averaging about 12 months. Using the previously mentioned six-month objective regression period as a criterion, the results are similar to those fol-

lowing adrenalectomy and hypophysectomy: response in 31 per cent of the patients. While our number of patients is small, it does seem that the procedure is equal to, and probably no better than, total hypophysectomy or adrenalectomy. There were 3 deaths among the first 10 patients, a mortality of 8.6 per cent. The mortality from adrenalectomy and hypophysectomy have now reached respectable levels, and it would seem that beyond oophorectomy, further ablative therapy is really a matter of personal choice of the physician responsible.

Summary

It would seem wise to appraise carefully the growth characteristics of the particular tumor under consideration. This knowledge is of inestimable value in outlining a program for control of metastases and relief of pain. Currently, there appears to be little evidence to support the practice of prophylactic castration. If indeed further study does suggest some value to be gained from this measure, its response would have to be striking in order to offset the loss of an important indicator of the subsequent hormonal management of the patient. It has been an almost unanimous observation that patients responding to oophorectomy have

a greater chance of benefiting from further ablative procedures.

It can be concluded from the experience with section of the pituitary stalk that total hypophysectomy in the management of metastatic breast cancer is unnecessary. The choice of procedures, however, is probably a personal one, governed by the surgeon's familiarity with the available methods.

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* * *

Chemotherapy of Breast Cancer

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DURHAM

The advent of certain carcinostatic drugs in recent years has brought a new perspective to the management of the patient with advanced carcinoma of the breast. These drugs, representing several different compounds with different modes of action, have proved useful in a variety of ways. The purpose of this discussion is to review briefly some of the classes of compounds in current use, their various methods of administration, and something of their clinical effectiveness in patients with advanced disease.

It is not the purpose of this communica-

tion to review in detail all the compounds which have been found to exert some effect in breast cancer, but rather to cover those agents which have shown the most promise to date and which have been used to the greatest extent in this disease. The palliative use of hormones and of irradiation in advanced cases is covered in separate communications.

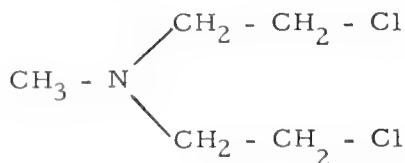
Compounds

The compounds which currently are in use are the alkylating agents (nitrogen mustard, triethylenethiophosphoramide (Cytosan) and an antimetabolite (5-Fluorouracil).

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The alkylating agents are capable of combining with chemical groups of cell components. This combination with metabolically important groups renders them relatively incapable of functioning in their usual fashion in the economy of the cell. The reaction is thought to be one involving the cholorethyl group of the mustard compound with nucleic acid. Because of the similar morphologic appearance of cells after x-ray and after alkylating agents, and since most tumors that respond to x-ray tend to regress after treatment with nitrogen mustard, the alkylating agents are sometimes called "radiomimetic." The chemical structures of nitrogen mustard and triethylenethiophosphoramide (ThioTEPA) are shown in figure 1. The chemical structure of Cytosan is shown in figure 2.

NITROGEN MUSTARD



THIOTEPA

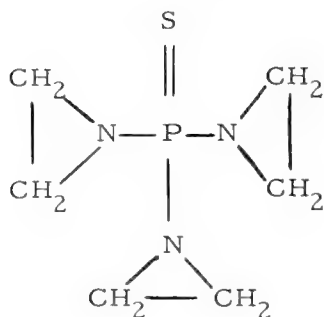


Figure 1

CYTOXAN

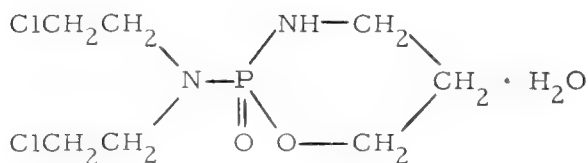


Figure 2

5-FLUOROURACIL

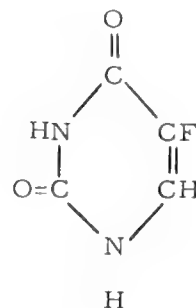


Figure 3

The chemical action of Cytosan is somewhat different from the other two agents, since a tissue enzyme is necessary to bring about cleavage of the compound before it becomes biologically active in tissue. This enzyme has been found to be more abundant in tumor tissue than in other tissues.

All of the alkylating agents are toxic compounds which produce, at times, rather serious and profound side effects. These include bone-marrow depression, local vesicant action on tissue in the case of nitrogen mustard, and alopecia in a percentage of patients who received Cytosan. Nitrogen mustard is commonly associated with rather severe nausea and vomiting, whereas ThioTEPA and Cytosan are well tolerated in this regard. The antimetabolite that has shown the best effect to date is 5-Fluorouracil—an antipyrimidine. The action of this agent interferes with the normal incorporation of uracil into the nucleic acids, RNA and DNA, thus interfering with cell division. These agents are also toxic compounds which may give rise to profound bone-marrow depression, diarrhea, nausea, vomiting, and alopecia. The chemical structure of 5-Fluorouracil is shown in figure 3.

Methods of Administration

The above-mentioned compounds have been used in the following ways in connection with the management of the patient with breast carcinoma: (1) systemic administration, intravenously or orally; (2) regional chemotherapy, by intra-arterial administration, perfusion, or wound irrigation; (3) injection into serous cavities.

Nitrogen mustard can be given (1) in-

travenously; (2) in regional chemotherapy, by intra-arterial administration, perfusion, or wound irrigation; (3) by injection into serous cavities.

ThioTEPA may be given either intravenously, intracavitary by injection, or intramuscularly. Cytosin is available for either intravenous or oral administration. 5-Fluorouracil is administered intravenously.

Clinical Results

The therapeutic agent which has had the widest application to clinical patients with advanced breast carcinoma is ThioTEPA. We have treated 55 patients with this agent and have obtained an objective response in approximately 25 per cent, with an additional 25 per cent showing subjective improvement without definite objective change in the tumor. These results resemble closely other reports of the use of this agent for this particular type of tumor.

The second most widely used agent has been 5-Fluorouracil, where the objective response rate is somewhat higher than that with ThioTEPA². Whereas the duration of palliation with the alkylating agents is usually in the range of four to six months, 5-Fluorouracil has tended to produce improvement for a somewhat longer period, ranging up to nine to twelve months.

The dosage schedule for 5-Fluorouracil is that advocated by Curreri³—15 mg. per kilogram for five doses, and then one-half this amount on alternate days until the patient reaches a toxic level as manifested by stomatitis, diarrhea, or a depression in the white blood count. Because of these side effects, this agent is considerably more disabling to the patient than is ThioTEPA.

Early results with the use of Cytosin in recurrent breast cancer indicate that the response rate is somewhat higher than with ThioTEPA, with the objective response in the range of 40 to 50 per cent of patients⁴. This drug is easy to take and has very few uncomfortable side effects. However, bone-marrow depression and alopecia may develop in a relatively large percentage of patients. The dosage schedule for this agent is usually approximately 2 to 3 Gm. given intravenously over a period of three to four

days, followed by a waiting period of 10 to 14 days to evaluate the effect on the white blood cell count. If the count falls as low as three to four thousand, the drug is withheld until the count reaches 5000, at which time the patient is placed on an oral maintenance dose in the range of 50 to 200 mg. per day, this dosage being titrated against the white blood count such as to keep it at a level of three to four thousand.

We have used nitrogen mustard almost exclusively in patients with pleural effusion. In this situation, the fluid on the involved side, or sides, is aspirated and a total dose of about 0.4 mg. of the drug is placed in the pleural cavity. Weisberger⁵ has reported on the use of the drug in this manner in a group of 88 patients, with good regression of the effusion in approximately 64 per cent. Our experience tends to parallel this report.

There have been brief reports of the use of 5-Fluorouracil in conjunction with radiation therapy for recurrent or advanced breast carcinoma, indicating some potentiating effect when the two agents are used concomitantly^{2b}. We have not yet had the opportunity to evaluate this mode of therapy; however, it is promising and a study currently is under way.

Surgical Adjuvant Chemotherapy

One other way in which the use of an alkylating agent may be of value in the management of patients with breast cancer is in conjunction with a standard operation for carcinoma of the breast (Surgical Adjuvant Study⁶). In this study, currently in progress, 0.8 mg. of ThioTEPA are given to the patient in divided doses over a three-day period, beginning on the day of operation. This is a study to evaluate the prophylactic effect of the drug relative to the recurrence of breast carcinoma and an increase in the survival rate of patients who undergo radical mastectomy.

Owing to the large number of institutions engaged in this study, large groups of patients are made available for evaluation, and the protocol is such that a control group of patients is being followed simultaneously with the group receiving the chemotherapeutic agent. Follow-up data on the patients

already subjected to this form of treatment indicate a significant reduction in the incidence of recurrence of tumor following radical mastectomy as compared to a control group not receiving the drug. Of course these are preliminary data, and further follow-up study will be required in order to assess whether this difference in recurrence rate can be maintained for longer periods of time, and whether or not this mode of therapy will indeed prolong life.

Mention should be made of the new agent, vincalcukoblastine,* an alkylid derivative of the periwinkle plant, which has received initial, evaluation in the treatment of advanced breast cancer, with indications that it may be rather effective in those patients who become resistant to x-ray therapy after initial evaluation in the treatment of adprevious exposure, and those who have been given other varieties of chemotherapy and are resistant. The response rate associated with this agent in a small group of patients in our experience suggests that approximately one-half of the patients will show further palliation when this drug is used.

The use of regional arterial administration of a chemotherapeutic drug in breast cancer has been reported but awaits further evaluation⁷.

Summary

The use of chemotherapeutic agents in the management of patients with advanced or recurrent breast carcinoma is discussed

briefly. Several of the alkylating agents, as well as one antimetabolite, have been evaluated in patients to the extent that one might expect an objective response in one-third to one-half of patients with advanced disease. Nitrogen mustard has been found just as effective, if not more so, than chromic phosphate or radioactive gold in the management of malignant pleural effusion due to breast carcinoma, and represents the treatment of choice for this complication of advanced cases. A new compound, vincalcukoblastine, offers promise of additional palliation in this group of patients. Since several modalities, including sex hormones, irradiation and chemotherapy, are available for treatment of advanced carcinoma of the breast, it is possible to provide rather long-range palliation in many patients.

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*Velban, Eli Lilly and Company's Indianapolis, Indiana.

* * *

DISEASE ERADICATION BY COOPERATION

With the introduction of the sulfonamides and the antibiotics, much security developed in the profession's and in the public's mind. Prior to the antimicrobial era, about 50 per cent of all deaths were due to or associated with infection. Probably syphilis, gonorrhea, and tuberculosis could be eradicated with universal cooperation.—H. Close Hesseltine, M.D., in *Trustee*, April 1962.

Fungus Diseases of the Lung Seen In Central North Carolina

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GREENSBORO

Fungus infections of the lungs have commonly been regarded as rather rare except in certain endemic areas such as California, and some of the exotic South Sea Islands. This concept would seem to be erroneous. In the past three years I have treated 8 people with pulmonary fungus infections, representing five different types of fungi. None of these people had been out of North Carolina in the preceding 10 years, and some had never been out of the state.

Up until a few years ago the preoperative distinction between neoplasm and fungus infection made little or no actual difference, for the only effective treatment of either was surgical extirpation. Unfortunately, this therapy was of benefit only if the lesion was localized. Recently a new antifungal agent, amphotericin B, has been introduced, and several reports¹ attesting to its efficacy have appeared.

Amphotericin B is obtained from a species of streptomycetes, and is in the same family as nystatin. Unfortunately, it must be given intravenously in daily aliquots of increasing amount, for a total dosage of 2000 to 4000 mg. Side effects are fairly common, but can be controlled by lowering the daily dosage or by administering hydrocortisone concurrently². The availability of this drug makes it extremely advantageous to exhaust every means to arrive at a preoperative diagnosis when a fungus may be the etiologic agent of a pulmonary mass.

Case Reports

Case 1: *Cryptococcosis*

A 44 year old man on a routine chest x-ray survey was found to have a small lesion in the right mid-lung field (fig. 1). A chest roentgenogram the year before had been negative. He denied having cough, sputum, chest pain, shortness of breath, weight loss, night sweats, or fever. He had not been out of North Carolina in years.

Physical examination showed a well developed, well nourished man who was alert, friendly and cooperative, and absolutely free of physical abnormalities. The tuberculin reaction was 2 plus.

Bronchoscopy was negative, as was the study of bronchial washings.

At thoracotomy the lesion was found to involve the medial division of the right middle lobe. The entire lobe was removed after a frozen section diagnosis of chronic pneumonitis was received. Further pathologic study of the lesion was suggestive of fungus disease, and consultation with the Armed Forces Institute of Pathology established the diagnosis of granulomatous pneumonitis with multiple fibrocaseous granulomas typical of cryptococcosis. Special stains showed frequently budding, round and oval, yeast-like bodies of various sizes with carminophilic capsules characteristic of cryptococcosis neoformans (fig. 1-C).

The patient made an uneventful recovery, and subsequent roentgenograms over a period of two years have shown no indication of recurrence of the disease.

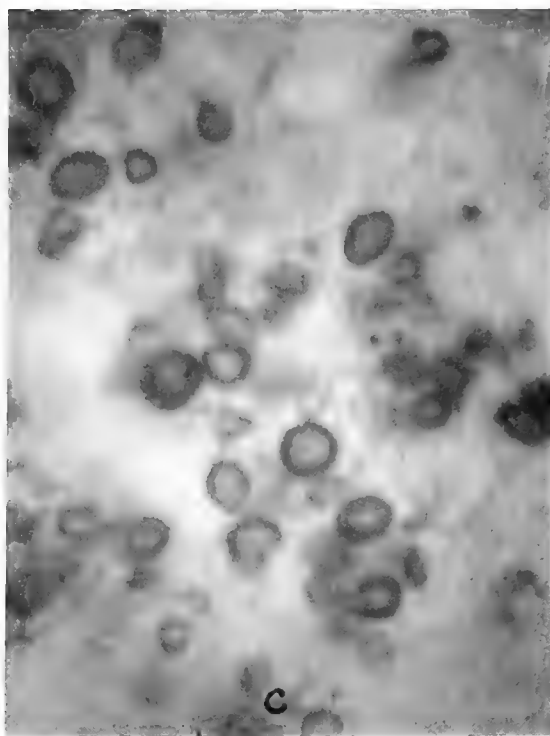
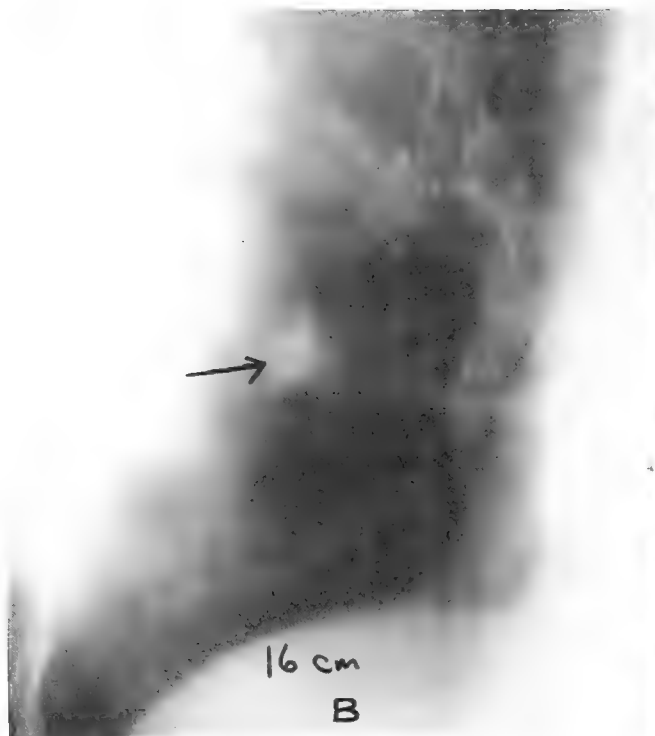
Comment: Cryptococcosis is not an uncommon disease in various animals, and is seen occasionally in humans in scattered areas. There are no specific endemic areas. The majority of cases have been reported from Australia and America. It is frequently coincident with some other disease of the reticuloendothelial system such as Hodgkin's disease or polycythemia. It has also been reported in association with diabetes. The portal of entry is unknown, but it is thought to enter through the respiratory or possibly the alimentary tract. It shows a definite predilection for the central nervous system, and the most common type of infection is meningoencephalitis. This disease has been invariably fatal, although it may run a course of many years. In cases like the present one, where the disease is definitely localized, surgical treatment remains the procedure of choice. Amphotericin B has been reported of value in treating bilateral pulmonary cryptococcal infections³, and it is expected to be of value in treating the meningoencephalitis form.

Case 2: *Coccidioidomycosis*

A 42 year old housewife was referred for investigation of a pulmonary lesion. She stated that some three weeks earlier she had noted the onset of a cough which somewhat resembled whooping cough. She had had no chills, fever,



Fig. 1. Case 1. A. Chest roentgenogram showing lesion in right mid-lung field. B. Planigram, at 16 cm., demonstrating same lesion. C. Photomicrograph showing the budding round and oval yeast-like bodies of varying size (cryptococcosis).



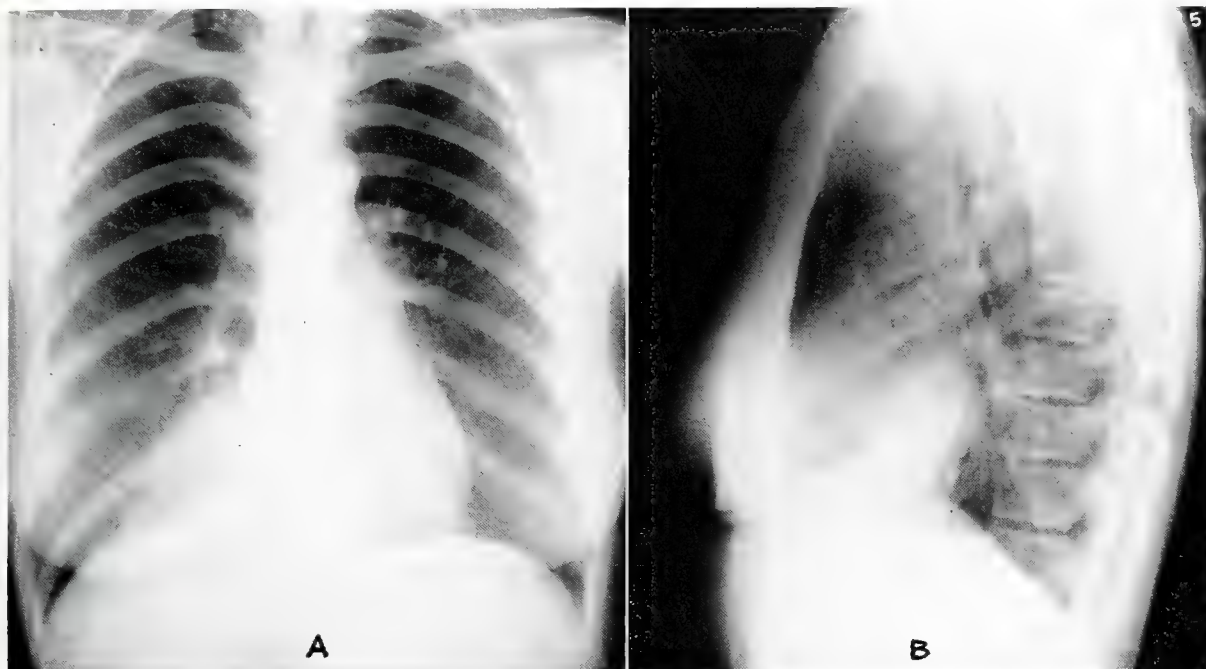


Fig. 2. Case 2. Posteroanterior and lateral chest films showing consolidation in the right lower lobe (coccidioidomycosis).

chest pain, or weight loss. The cough at first was nonproductive, but in the three or four days before admission she began to bring up some purulent material. She had not coughed up any blood at any time. She denied any history suggestive of aspiration of a foreign body. There was no history of contact with tuberculosis. X-ray examination of the chest showed consolidation in the lower lung field on the right (fig. 2). The patient had been treated with antibiotics by her personal physician for one week with no change in the lesion.

This woman had been born in North Carolina and had never been out of the state. She worked in a textile mill. Physical examination showed absolutely no abnormality, and there was apparently good aeration of both lungs. On bronchoscopy the only abnormality noted was some bulging of the posterior aspect of the right main bronchus below the orifice of the middle lobe bronchus. Bronchograms showed failure to fill the median basal segment; bronchial washings were noncontributory.

On thoracotomy the median basal segment of the lower lobe was found to be collapsed, quite endurated, and adherent to the pericardium. Right lower lobectomy was performed. The frozen-section diagnosis was chronic inflammatory lesion.

The patient did well postoperatively and has remained well for two years since then. Further examination of the specimen, including consultation with other laboratories, showed numerous fungus organisms throughout the specimen. The final diagnosis was coccidioidomycosis.

Comment: Coccidioidomycosis is seen in the far western states much more often than in the East. Generally when a case is seen in the East it is found that the patient has been visiting or has lived in the West for some time. We have seen cases of coccidioidomycosis in farmers who bought animal feed from the western states. This woman denied any of these possibilities.

The preoperative diagnosis in this case was carcinoma. Skin tests were not done. Since the disease was apparently localized in the lower lobe and the lesion was completely removed at operation, this would seem to be the procedure of choice. If she should have a recurrence, treatment with amphotericin B would be in order.

Case 3. Actinomycosis

A 43 year old man entered the hospital with the complaint of pain in his chest, and pneumonia. He stated that three months before he had begun to have nocturnal chilly sensations and aching in his joints. After two weeks of these prodromal sensations he suffered a sudden onset of pain in his back and chest, accompanied by difficulty in breathing. He was examined by his physician and told that he had pleurisy. He was treated with an antibiotic, and after four or five days began to feel better and continued to improve for the next two weeks. Some five or six weeks later, however, he began

to have fever and a cough productive of purulent material. At this time he was examined by x-ray and told that he had pneumonia. Another antibiotic was prescribed, and slowly his fever cleared and he seemed to be better. About a week before admission, however, he began to cough again, this time producing as much as 100 cc. of yellowish-brown sputum a day. He had no hemoptysis and only a moderate amount of left-sided chest pain and some shortness of breath.

This patient had traveled extensively, having been in the navy for several years during World War II. He had not, however, been out of North Carolina for the past 10 years.

Examination except for the chest was non-contributory. There was definite dullness to percussion in the left lower part of the chest posteriorly and anteriorly, with rales and rhonchi and diminished breath sounds in these areas. X-ray examination showed an oval density between the diaphragm and the lung in the left lower lung field (fig. 3). It was thought that this represented chronic empyema, and that decortication was indicated.

At thoracotomy a large, firm mass was found in the periphery of the lung at the posterior-inferior part of the chest. The mass was opened and several hundred cubic centimeters of purulent material evacuated. All of the peel was dissected off the lung and the diaphragm. At the completion of the procedure the anesthetist was able to expand the lung so that it filled the cavity completely. Closure was in the routine manner, with adequate drainage.

As the patient was known to be sensitive to penicillin, he was started on tetracycline post-operatively. Two days later the pathologist reported a diagnosis of acute suppurative and chronic inflammation of the pleura consistent with actinomycosis. Although penicillin is the drug of choice for actinomycosis, in view of his known sensitivity to it, triple sulfa and potassium iodine were added to his medication. The pathologic report was subsequently augmented by consultation and the diagnosis of actinomycosis confirmed.

The patient ran a moderate fever for about a week, and then the temperature gradually came down to normal. The postoperative chest density slowly cleared. After discharge he was kept on tetracycline for a month and on triple sulfa and potassium iodine for six months. At this time his chest was clear and has remained so for nearly three years.

Comment: Actinomycosis of the pleura without a primary focus such as a lung abscess is rather rare. In this case, had we known the patient had actinomycosis we certainly would have given him triple sulfa and tetracycline prior to operation (in patients not sensitive to penicillin these are the therapeutic agents of choice). In retrospect we certainly wonder if, had he been adequately treated on a longer course of antibiotics when he first became ill, he would have avoided the empyema.

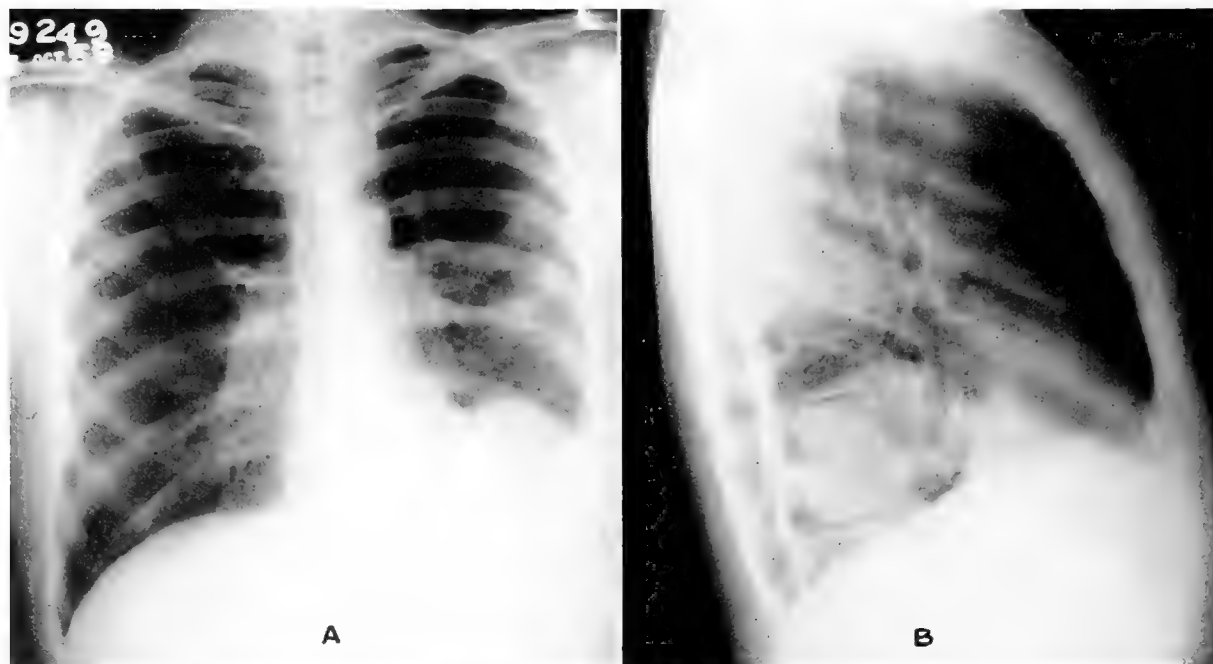


Fig. 3. Case 3. Posteroanterior and lateral chest films showing an oval density in the left lower pleural area (actinomycosis).

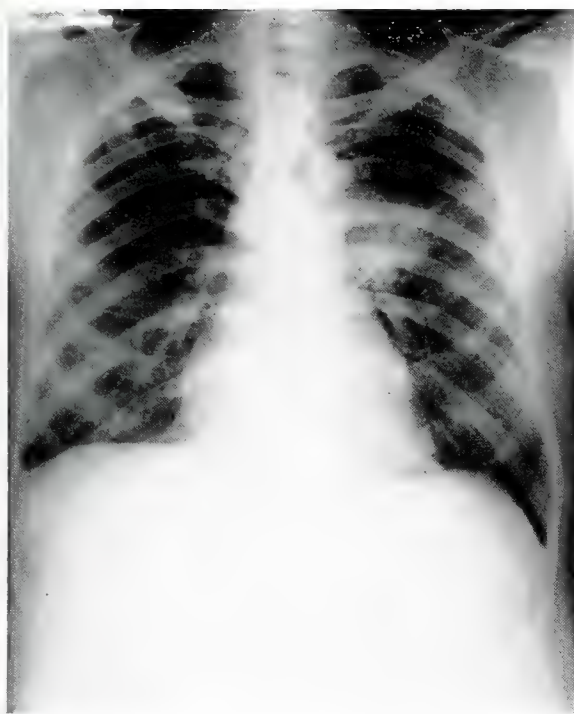


Fig. 4. Case 4. Chest roentgenogram showing left hilar mass, thought to be typical of carcinoma (blastomycosis).

Case 4. Blastomycosis

This 52 year old man stated that some seven or eight months prior to admission he first noticed a severe cough accompanied by pain in the left side of the chest. Occasionally he would produce some purulent sputum, and at times had coughed up a few flecks of blood. He denied weight loss, night sweats and contacts with tuberculosis. X-ray examination had shown a mass in the left upper lobe that was typical of carcinoma (fig. 4). Bronchoscopic examination was negative, as was a study of the bronchial secretions. The roentgenogram appeared so typical of carcinoma that the case was thought to be hopeless. However, to confirm the diagnosis a tissue diagnosis was thought necessary, and thoracotomy was performed. Operation disclosed a hard 6-cm. mass in the hilar region, encroaching on both the upper and lower lobe bronchi. There were several enlarged lymph nodes in the mediastinum. Frozen section examination of these lymph nodes showed no evidence of cancer. A left pneumonectomy was performed with only minor difficulty due to the mass. Microscopic examination of the bronchus where it was amputated did not show any evidence of cancer.

The patient made an uneventful recovery. Subsequent study of the resected lung showed a chronic fibrosing granulomatous inflammatory process, and special stained sections revealed the presence of blastomycetes.

Comment: Although this man has done well since operation, he has lost his left lung. If the diagnosis had been made prior to operation, a course of therapy with amphotericin B certainly would have been in order. Judging from the successful reports of this drug, the chances are that he would have benefited from its use. However, in view of the roentgenogram and our inability to make a specific diagnosis by identifying the blastomycetes in the sputum, the diagnosis of carcinoma would have to be entertained until proved otherwise.

Case 5. Histoplasmosis

This 54 year old woman stated that she became ill 12 days prior to admission. She awoke early one morning feeling chilly and then had a chill lasting for some two hours. After that she became nauseated, vomited several times, and then noted pain in the right lower side of the chest. This pain increased constantly in intensity, and some 48 hours later she consulted her personal physician. He found absent breath sounds and dullness to percussion in the right lower lobe and made a diagnosis of pneumonia. He recommended hospitalization, but it was necessary to treat her at home with penicillin for three days before admission was achieved. X-ray examination at this time showed a small amount of fluid and a coin lesion laterally at the right base (fig. 5).

In spite of persistent treatment with antibiotics, fluid continued to accumulate on the right side, and there was some adenopathy in the hilar region. The patient denied having had hemoptysis or weight loss or exposure to tuberculosis. She did say she had frequent attacks of chronic bronchitis. The tuberculin test was negative. Thoracentesis was performed and 100 cc. of cloudy, yellow fluid was obtained. Examination of the fluid showed it to be a purulent exudate, but no specific etiologic agent was identified. Bronchoscopy and bronchography were performed. There was a large amount of secretion on the right and the orifice of the right middle lobe was constricted to about half its normal size. Bronchograms showed absence of filling of the right middle lobe bronchi. Study of the secretions showed no specific etiologic agent.

Thoracotomy was performed. The right middle lobe was atelectatic, as were the basal segments of the lower lobe. The apical segment of the lower lobe contained air. The coin lesion noted on x-ray was within the lower lobe. There were many calcified hilar nodes. The lower and middle lobes were removed with moderate difficulty due to enlarged lymph nodes. Recovery from the operation was uneventful. A study of the speci-

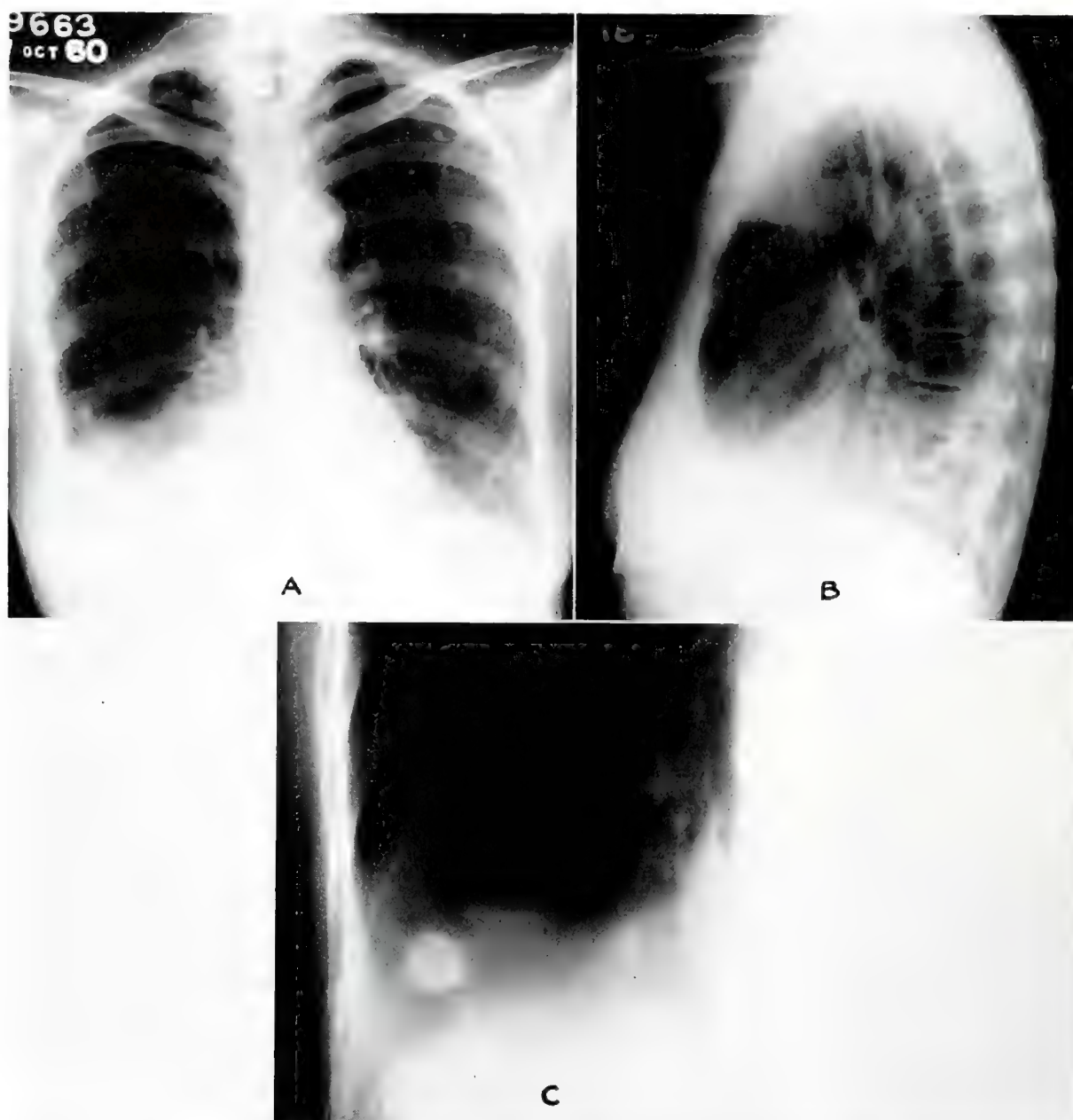


Fig. 5 Case 5. Anteroposterior and lateral chest films showing density in right lower lobe, with planigram showing the calcified nodule in the same area (histoplasmosis).

men showed chronic granulomatous disease suggestive of a fungus infection. Consultation with the AFIP was obtained and the final diagnosis, following special staining, was fibrocasseocalcific granuloma of the lower lobe and the hilar lymph nodes, compatible with histoplasmosis. The patient made an uneventful recovery and has continued to do well at home. It is now some 12 months since operation.

Comment: It is believed that this woman had acute pneumonia with effusion superimposed on the histoplasmosis that she had

probably had for some time, in view of the extensive calcification present. However, in such a condition as this, had it been possible to establish a diagnosis prior to operation, treatment with amphotericin B would have been treatment of choice⁴.

Discussion

Fungus disease of the lungs may simulate carcinoma, empyema, pneumonia, lung abscess, or virtually any other pulmonary or

pleural disease. The symptoms are non-specific. There are no typical x-ray findings. A positive skin test may suggest the diagnosis but cannot be taken as conclusive. The diagnosis can be made with certainty only by identifying the fungus itself.

If the lesion is sharply circumscribed, surgical treatment will probably remain the best treatment. In cases of diffuse or bilateral disease, or simultaneous involvement of other organs, then treatment with amphotericin B, or penicillin for actinomycosis, is indicated.

Acknowledgement

The author is grateful to the following physicians for referral of the above cases: Cases 1 and 3, Dr. M. D. Bonner; Case 2, Dr. Ben For-

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Health Care, Health Expense, and Health Insurance

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It has been widely stated that health care, like food, shelter, and clothing, is one of the necessities of life. But the need for health care varies widely among individuals. Medical expenses may be small or large; some are incurred by nearly everyone and others by only an unfortunate few; some are easily foreseen by the individual and others quite unpredictable. Most health care expenses result from an unwelcome accident or sickness—but some are incurred by the healthy as a precautionary measure.

There are numerous ways of meeting these expenses when they occur. Some can readily be paid out of current earnings; others require the use of past or future earnings, or reliance upon outside sources. The normal self-supporting individual does not wish to depend upon the charity of friends or relatives, or upon public assistance for himself or his family. He also prefers, if possible, to avoid borrowing against his future income. Therefore, if he is prudent, he will have accumulated savings or purchased insurance to meet his medical expenses when they occur. The payment method, or com-

bination of methods, he uses in any particular instance will, of course, depend upon his circumstances and the type of expense. The present article will consider the circumstances under which insurance is the mechanism he has chosen.

The Purpose of Insurance

Insurance is based upon the premise that events which are quite unpredictable for the individual are nevertheless highly predictable in the aggregate. When an event entails financial loss to the individual, he can protect himself by joining with others to pay the average amount of loss experienced by the pool of participants instead of taking an all-or-nothing gamble. Health insurance is not intended to relieve the individual of the responsibility of providing for his own and his family's health care needs, but simply to prevent costs resulting from illness from causing financial disaster. Its purpose is to *reduce the risk of economic loss due to disability by sharing that risk with others subject to the same hazard*. As a possible by-product, health insurance may result in improved health if, unhampered by financial worries, people get sick less often,

seek needed care earlier, or recover more quickly from their illnesses.

The Principles of Health Insurance

To achieve its purpose, health insurance must adhere to certain basic principles. The loss insured against must be (1) infrequent and unpredictable; (2) substantial in amount; (3) caused by an undesirable event; and (4) clearly definable when it occurs.

Most of the difficulties which have beset insurance from time to time can be traced to some departure from these principles. While these departures have generally seemed socially desirable, so that a complete return to the strict principles of insurance is hardly feasible, an understanding of the principles will be helpful in facing the difficulties and meeting the problems inherent in the doctor-patient insurance relationship.

Insurable expenses are infrequent and unpredictable.

The purpose of insurance is to provide protection against a possible loss—against something which may or may not happen. There is no point in trading dollars with an insurance company by insuring against expenses which virtually everyone incurs. If the costs of treating common colds, digestive disturbances, minor injuries and other frequent ailments were covered by insurance, everyone would receive, but no one would gain by it. The beneficiaries would simply be paying the insurance company to pay the doctor.

Insurance best serves its purpose when expenses incurred by a small proportion of the population are shared by the many who might have incurred those expenses, but did not. This premise assumes that the incidence of expense cannot be predicted. Before the event each member of the insured group is equally liable to suffer the loss insured against. Or if some people are more likely than others to suffer the loss, this likelihood must be taken into account, as far as it is known, in setting the premiums. Women are likely to incur medical expenses more frequently than men; miners and con-

struction workers more frequently than, for example, clerical workers; persons in poor physical condition than those in good condition; older than younger people. To adjust for these higher frequencies, either the premium must be higher or the benefits lower.

When people are paying their own health insurance premiums, they can only be asked to pay a premium that is proportionate to their own risk; if they believe the premium is too high, they will look elsewhere for protection. In group insurance, on the other hand, where there is an employer contribution, it is possible for all members of the group to be charged alike, if they are charged at all. Although the risk varies, the difference is made up by the employer. No one is charged more than his fair share; some are charged considerably less.

The employer's contribution also makes it possible to include expenses which are completely predictable—if the employer wants to pay for them. Thus benefits can be provided for regular physical examinations in the expectation that all members of the group will receive them. Pre-existing conditions can also be covered by group insurance, since it can be assumed that the group will contain some individuals in better than average health as well as some currently in need of medical attention, and that covering those in poor health will not drive those in good health out of the group.

Insurable expenses are substantial.

The second principle of insurance—that the loss insured against be substantial—is closely related to the first. As with the frequently incurred expenses, it is more economical for the individual to pay the small expenses directly than to pay the insurance company to pay them.

However, while the prudent individual will provide for his minor expenses through regular savings even though the expenses themselves may occur irregularly, many people find it difficult to do so. For these people a forced savings plan may well be desirable, and such a plan may well be administered in conjunction with a true insur-

ance plan. Particularly in group insurance to which the employer contributes, this union of budgeting and insurance may be practicable. Nevertheless it is expensive, since administrative costs are related more closely to the number of claims than to the size of the benefits. It costs very nearly one hundred times as much to pay one hundred \$10 claims as to pay one \$1000 claim. It is for this reason—to save the policyholders money—that deductible provisions are growing in popularity. There are still small claims to be paid—claims where the deductible portion is barely satisfied—but there are not as many of them. Meanwhile, by paying the small expenses directly instead of through the insurance company, the policyholders are saving the administrative cost.

Insurable expenses are caused by an undesirable event.

The protection of insurance is needed in the case of expenses caused by undesirable events; it is not intended to be an added windfall when the event itself is desirable. If the event is desirable, no matter how large or unpredictable the expense, the individual should be willing to pay for it from his savings; the other members of the group should not be asked to share in the cost. On the other hand, if the event itself is undesirable, people will not be tempted to seek it for its own sake or in order to get money from the insurance company; the presence of insurance will not defeat its own purpose by raising the incidence of the event insured against.

For most people, ill-health is a hazard to be avoided as much as the attendant medical expense. Others seem to enjoy ill-health. Consequently some form of control is needed to prevent the great bulk of policyholders from being asked to pay inflated premiums to provide unneeded benefits for a few less prudent or less conscientious policyholders. The control used by insurance companies is usually some form of co-insurance. Because the insured is reimbursed for something less than 100 per cent of his expenses, he has a financial incentive to keep those expenses as low as possible. If he does get sick he is

far better off with insurance than without it, but he is still better off if he stays well.

Insurable expenses are clearly definable.

The final requirement for an insurable expense is an unambiguous method of determining what benefits are due, and when, and of calculating the expected cost of the benefits.

The amount of the benefit is relatively simple to determine. It may be a specified sum payable upon the occurrence or continuation of a certain event; it may be reimbursement of a specified percentage of a much broader range of expenses up to a much higher maximum. It cannot be unlimited, for such a provision might amount to little more than a blank check drawn against the insurance company.

Determining when benefits are due is slightly more difficult. The problem is to ascertain that the event insured against has occurred, or that the expenses are in fact eligible for payment under the terms of the policy. Companies which attempt to insure against an event which is easily confused with another event not intentionally covered by the policy are violating the principle of definiteness, and are likely to end by paying for both events. For example, it has been difficult to eliminate hospital insurance benefits for diagnostic admissions.

The principle of definiteness also refers to the necessity of calculating in advance the cost of the prospective benefits. Although the event insured against must be unpredictable for the individual, it must be predictable in the aggregate. It must be possible to foretell what percentage of a large group will suffer the event, even though no one can say which individuals will suffer it; the average expense of the event must be known, even though the exact cost in any given instance cannot be foretold. If the presence of insurance, or inflation, or anything else, affects these factors, so that premiums cannot be reliably computed, the insuring organization will be in difficulty.

Health Insurance in Practice

Previous articles in this JOURNAL have described the various types of health in-

insurance available to the people of North Carolina¹. It may now be asked: How well do these types of insurance follow the principles of insurance? Let us look in turn at each.

Loss-of-income insurance

Benefits under loss-of-income insurance generally start after the insured has been disabled for a period ranging from several days to several months. The small, frequent disabilities which cause no great economic hardship are thus eliminated, leaving the insurance dollar for the benefits that are most needed: when the disability continues for a long period and the loss of income is great.

Benefits must bear a reasonable relationship to the normal earnings of the insured, so that he receives an adequate income while he is sick, but still has a financial incentive to go back to work as soon as possible. In recent years, adequacy of income has been the main problem, as people often neglect to purchase additional insurance to keep pace with rising salaries and living costs. On the other hand, if people are unemployed or their earnings reduced, they may find it profitable to be sick. The losses of many companies during the depression of the thirties, when disability benefits based on pre-depression incomes were greater than current earnings for many policyholders, emphasize the importance of financial adjustments in preventing both hardships and abuses.

The effect of changes in income on the frequency and duration of disability shows that loss-of-income insurance does not meet the requirement of definiteness too well. The responsibility for determining whether or not benefits are due, or should be continued, depends very largely on the attending physician.

Hospital, surgical, and regular medical expense insurance

Early policies covering loss of income often provided extra benefits during any period when the insured was confined in a

hospital. Hospitalization at that time was so undesirable that there was little chance that anyone who could avoid it would seek admission in order to collect insurance.

Present-day hospital insurance involves greater problems. Hospitalization is not always the catastrophe, medically or economically, that it once was. The elective admission, the short stay, the diagnostic admission make it questionable whether all hospitalization is truly insurable. The possibility of unnecessarily protracted hospital stays or unessential services, and the very real threat of inflation, have all insurers worried. Small, frequent claims, an event that is not as undesirable as it used to be, and a lack of clear definition as to incidence, duration, or cost affect all insurance plans. The use of the deductible principle and co-insurance to reduce the frequency of small claims and give the patient an interest in keeping his expenses as low as possible has met with some success; the cooperation of doctors and patients in avoiding unnecessary expense is also needed.

Most surgery is a serious matter, both medically and financially. Yet many minor procedures covered in surgical expense policies could readily be paid for without insurance. Too much of the insurance now in effect provides full reimbursement for the small cost of minor surgery and nothing toward the large cost of some nonsurgical treatment. The type of insurance that is now called "regular" medical, to differentiate it from major and comprehensive medical expense coverage was an attempt to remove the anomaly of providing benefits for minor surgery but not for equivalent medical services. Unfortunately, it approached the problem from the wrong direction. Surgical and regular medical expense insurance departs from insurance principles in paying for small, frequent expenses, but not contributing enough toward the substantial ones. Regular medical expense insurance may have the further disadvantage of unnecessarily increasing the frequency of visits to the doctor, not only increasing the cost of insurance, but also keeping the doctor from patients who need him more.

Major and comprehensive medical expense insurance

Major and comprehensive medical expense insurance was designed with the principles of insurance in mind. The "deductible" provision eliminates the frequent small expenses. Co-insurance based on a specified percentage rather than as the difference between the actual charge and the scheduled benefit, permits substantial benefits to meet heavy expenses while maintaining the patient's interest in keeping expenses to a minimum. But the requirement of definiteness is only loosely observed. The intention is to pay a large proportion of the "reasonable charges for necessary services" to restore the patient to health. But who is to determine what is reasonable and what is necessary?

Insurance companies believe that this is a matter to be determined by the doctor and the patient. The presence of insurance should not enter into the physician-patient relationship. But the companies cannot be blind to the fact that insurance sometimes does affect both the treatment prescribed and the cost of the services. The presence or absence of hospital insurance may determine whether or not the patient goes to the hospital; the presence or absence of surgical insurance may determine whether surgical or nonsurgical measures are used; the presence or absence of major medical insurance may affect the amount, duration, or cost of treatment.

None of these things should happen; it is an unfortunate fact that they do. It is the responsibility of every doctor who believes in the freedom of medicine to exercise that freedom with restraint. Freedom of speech does not include libel or slander; freedom of religion does not include religious practices (polygamy, for example) contrary to public policy; similarly the private practice of medicine is free only because, and to the extent that, it is in the public interest.

Competing Philosophies of Health Insurance

Dr. John Borden Graham² has suggested three criteria for the organization of medical care in the public interest:

The tripartite question which we really should be seeking an answer to is this: What is the pattern of medical care which (1) **provides the best care for the most people at the least cost consistent with decent remuneration for the physician,** (2) **preserves the selfhood of the physician, and** (3) **retains free choice of physicians by the patient, thus providing the opportunity of development of a personal "doctor-patient relationship."**

There may be some people who still believe that all medical expenses should be paid by the patient at the time they are incurred. It should be obvious to most, however, that this situation is unrealistic so far as the majority of the population is concerned, nor does it meet the first of Dr. Graham's criteria. There is no longer a choice between insurance or no insurance, but merely among different approaches and philosophies of insurance. Three broad categories can be distinguished.

One philosophy holds that all health expenses should be paid in advance, even if this means limiting the choice of physician. With the last penny of his budget committed to installment purchases, the patient is unable to pay unexpected medical bills, no matter how small. He will not receive needed care without the financial inducement that it is already paid for and might as well be used. The doctors who provide the care must be organized and supervised in order to provide the best possible care at the lowest possible cost.

High quality medical care undoubtedly is being provided under such systems. It is even possible that a better doctor-patient relationship can exist when the patient is assured by the Plan of the doctor's competence than when he chooses his own doctor. However, most doctors feel that salaried practice is in some measure dehumanizing, and they are joined by most of their patients in the belief that free choice of physician is important. Although the American Medical Association has recently declared its support of the patient's right to select his preferred system of medical care³, the right to choose a plan that limits free choice is allowed only as an extension of the basic right of free choice of physician.

The next philosophy of health insurance holds that certain types of expense, usually substantial, should be paid in full, with the patient paying other charges as they are incurred and having a completely free choice of physician. The hospitals and physicians that provide the covered services agree voluntarily to accept the benefits as full payment, at least for patients below certain income levels. Because they are thereby assured of payment without collection problems, most doctors and hospitals will participate in such plans and the patient can thus choose freely among the doctors in his community.

The drawbacks of this philosophy can be mentioned briefly: Benefits do not keep pace with costs in an inflationary economy; the plan is involved in the administrative costs of the many small expenses for hospitalization and surgery which it pays in addition to the large expenses for these services; and many large expenses for non-surgical treatment, nursing, and drugs are not included. Voluntary participation in such a plan is not likely to interfere with the selfhood of the physician or the doctor-patient relationship, but it is doubtful that this is the best possible or even the best available method of providing the best care for the most people at the least cost.

The third philosophy holds that insurance should provide partial payment for virtually all health expense except the very smallest, with the patient retaining some responsibility for payment and having completely free choice of physician. This is the philosophy associated with the insurance principles described in this article. It is compatible with the pattern of medical care sought by Dr. Graham. But it does not stand alone. It requires that patients be willing to pay their own small expenses and to share the risk of large expenses—expecting to help their neighbors in distress as well as to be helped in their own necessity. It expects doctors to charge reasonable fees and prescribe necessary treatment without regard to the presence of insurance. Of insurance companies it expects policies designed in accordance with the principles of insurance, and efficient, courteous, and continually im-

proving service to the American people. All alike must accept the responsibilities that go with freedom.

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Report from The Duke University Poison Control Center

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STRYCHNINE

Strychnine is used as rodent bait as well as a component of various tonics and cathartic pills which are brightly colored and sugar-coated and very attractive to young children. Unfortunately these pills are found in many homes and are often carelessly left about where infants can get them. The lethal dose varies considerably, but deaths have been reported from as little as 5 or 10 mg.

Strychnine differs from most alkaloids in that it is absorbed from the stomach, and symptoms appear quite readily from ingestion. This potent alkaloid acts in the body primarily as a central nervous system stimulant. There is greatly increased reflex excitability in the spinal cord which results in a loss of the normal inhibition of spread of motor cell stimulation, so that all muscles contract simultaneously. This leads to the characteristic strychnine convulsion. All skeletal muscles partake in it, and the stronger partners of antagonistic groups exert dominance in determining the posture assumed. Thus it is that the victim shows extensive rigidity of the trunk (opisthotonus), which may be so extreme that only the heels and the crown of the head are in contact with the ground. The forearms are usually flexed across the chest.

The facial muscles also show a typical

tetanic spasm which gives the risus sardonicus expression to the features. The diaphragmatic and thoracic muscles are likewise involved, and as a result the respirations cease during the seizure. The venous congestion, blue black cyanosis, bulging eyes, dilated pupils, and facial grimace of these patients is an experience not easily forgotten. In addition, the person is acutely conscious throughout and the pain is intense. There is usually experienced terrifying fright, the feeling of impending death, and the sensation of being hurled through space.

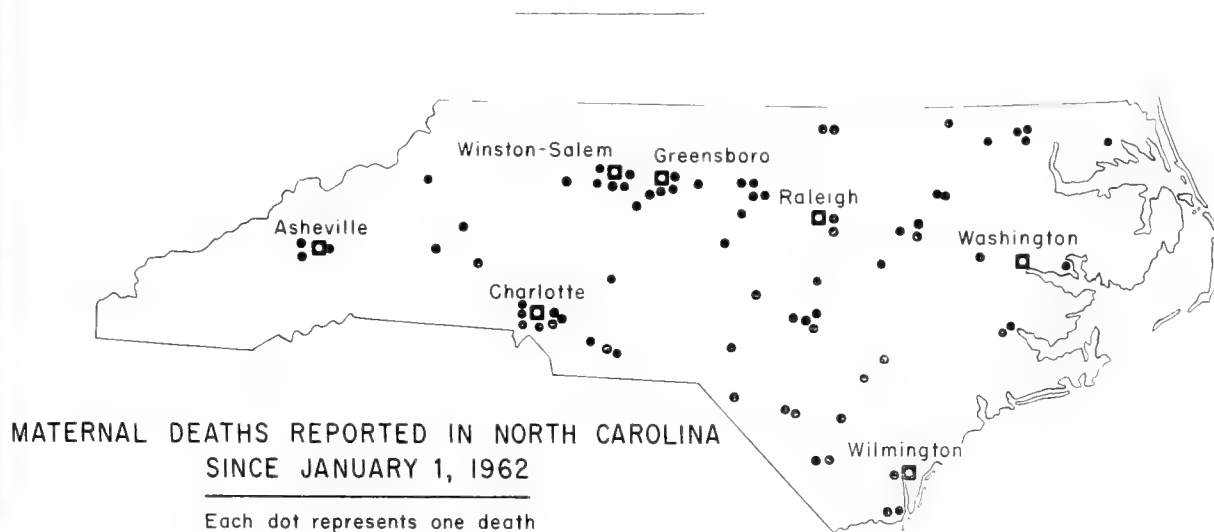
The convulsion lasts from one-half to two minutes and is followed by a period of relaxation during which respiration is resumed, the cyanosis disappears, and the circulation improves. These convulsions occur at intervals of 5 to 15 minutes, varying with the type and intensity of external stimuli. Death due to respiratory failure will ensue unless these seizures are controlled before great damage is done to the vital centers of the medulla.

The symptoms, which usually appear within 10 to 20 minutes after ingestion of the poison, are often preceded by restlessness, mental anxiety, and twitching of the fingers, hands and face.

The two aims of treatment are toward the prevention of convulsions and the removal or destruction of the poison. The patient should put to bed in a dark room,

free from noise and disturbance. If much twitching and convulsions have not occurred, a chemical antidote should be administered, such as tannic acid, 1 Gm., or a teaspoonful in half a glass of water; tincture of iodine or compound solution of iodine, 1 or 2 ml. in one glass of water; strong tea; potassium permanganate, 0.25 Gm. (4 grains) in a glass of water, and activated charcoal. One gram of charcoal will absorb more than 500 mg. of strychnine. It is probably the best therapeutic measure available and should be used immediately, for to be effective, it must be given early in the treatment. The stomach should then be emptied by lavage or emesis. Fatal convulsions may be precipitated by attempts at gastric lavage unless barbiturate sedation is instituted beforehand.

In the presence of seizures or threatened convulsions, the administration of short acting sedatives is paramount. Intravenous and rectal instillation of one of the barbiturates will be necessary to control the convulsions. Muscle relaxants, such as mephenesin, are reported to be useful adjuncts in therapy. Artificial respiration, oxygen, and other supportive measures are mandatory in treatment. Morphine should not be used at any time in the treatment, for it further depresses an already precariously depressed respiration and acts as a spinal cord stimulant which synergizes with the stimulation from strychnine.



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OCTOBER, 1962

FALL EXECUTIVE COUNCIL MEETING

The Fall meeting of the Executive Council of the State Medical Society was held on Sunday, September 16, in the Jack Tar Hotel in Durham. The Council meeting was preceded by a three-day conclave of the six commissions and more than 50 committees of the State Society.

The action of the council which created most interest was the decision to postpone the polio mass immunization program. This is dealt with in a separate editorial.

The meeting began with two sad announcements: the first, that Dr. John C. Tayloe had died the day before; the second, that Dr. Westbrook Murphy was critically ill and not expected to live. A telegram of sympathy was sent Dr. Tayloe's family.

Dr. Theodore Raiford, chairman of the Blue Shield Committee, announced that attorneys for the Hospital Saving and Hospital Care Associations were to meet with

Medical Society representatives to discuss a merger of these organizations.

Dr. Wayne Benton, chairman of the Finance Committee, gave the discouraging news that the estimated budget for next year exceeds the Society's expected income, and that the dues might have to be increased. A committee was appointed to consider this possibility.

The Legislative Committee (Dr. E. T. Beddingfield, chairman) reported that there is a better chance for getting the next legislature to adopt the Kerr-Mills legislation, but that it would not be possible to get a medical advisory council appointed. The Committee expected more support from the legislature for certain safety measures in highway traffic, including the alcohol concentration test and the use of safety belts. Another bill to be considered is one requiring doctors to report certain conditions that would handicap applicants for drivers' licenses.

Dr. Norton reported that there had been an improvement in the earlier filing of death certificates, and that doctors would be responsible for completing a certificate within 72 hours of death. In cases where the cause of death is not known, an incomplete report might be filed pending the pathologist's report.

Mrs. C. T. Wilkinson, president of the Auxiliary, gave an excellent report of the Auxiliary's activities. She was given a standing ovation after she had finished.

Dr. Kernodle made an excellent presiding officer, and altogether the Council meeting was a constructive one. The next meeting is to be held in January—before the legislature gets too far with its program.

* * *

STATE-WIDE MASS POLIO IMMUNIZATION DEFERRED

By far the most newsworthy action of our State Society's Executive Council at its Fall meeting on September 16 was the decision to postpone the mass oral polio immunization program "until the complete safety of all three types for all age groups is definitely established." Dr. Sam Ravenel's Committee on Poliomyelitis had done an outstanding job in preparing for a state-wide mass

immunization with the Sabin oral vaccine. At the time of the Council meeting, 65 counties had agreed to take part in the program, which was to have begun within the next month. It is almost certain that all counties would have fallen in line, making North Carolina the first state in the Union to put on a state-wide mass immunization program.

Doubtless our readers are familiar with the widely publicized reason for this action. The Canadian health authorities had recommended against further mass use of the Sabin oral vaccine, after getting reports of four cases of paralytic polio among the four million persons who had received the Sabin vaccine. In the United States, about 38 million people have been vaccinated, and only 16 have developed polio afterward. Of these, the Surgeon General stated that 11 cases of type III cannot be assumed to be coincidental.

The Committee on Poliomyelitis adopted the following resolution, which was approved by the Executive Council:

1. That mass all age oral polio immunization be deferred in North Carolina until the complete safety of all three types for all age groups is definitely established.
2. That the advice given by this committee last May regarding oral polio immunization individually and in small groups be reaffirmed, namely: Immunization with oral vaccine be deferred until a mass state-wide program is implemented.
3. That a strong and continuing program for Salk immunization of *all age groups* be encouraged.
4. That a booster dose of Salk vaccine be administered to all previously immunized persons at least each two years.

Inasmuch as general immunity of the whole population could not be achieved unless at least 75 per cent of the population is given the oral vaccine, it is perhaps fortunate that the discouraging report from Canada came before the program was started. The caution shown by the Committee on

Poliomyelitis should give the public full confidence in the committee if it recommends a mass immunization program in the future.

* * *

VACCINATE AGAINST INFLUENZA

The influenza season is now upon us. The Surgeon General of the United States Public Health Service, "upon the recommendation of the Advisory Committee on Influenza, has urged early fall vaccination of the susceptible population against influenza. As in previous years, the susceptible population includes the aged, the chronically ill, and pregnant women. This year the susceptible population has been expanded to include those over 45 years of age.

"While accurate predictions of influenza occurrences are difficult, the Committee has expressed the opinion that recent and past patterns of influenza A2 (Asian strain) indicate that this strain of influenza is due in the United States next fall and winter. The Committee further said that outbreaks of influenza B will probably be infrequent this year."

This commercial influenza vaccine is the polyvalent killed-virus preparation, manufactured by the following pharmaceutical houses: Eli Lilly and Company; Lederle Laboratories; Merck, Sharp, and Dohme; National Drug Company; Parke-Davis and Company; Charles Pfizer and Company; Pitman-Moore Company; and Wyeth Laboratories.

Dosages recommended by the Public Health Service for those not previously immunized is a 1.0 cc. dose, administered subcutaneously, as soon as practicable after September 1, and the second 1.0 cc. dose about two months later. Those previously immunized should receive a single dose of 1.0 cc subcutaneously.

Numerous reports have demonstrated that one dose of influenza vaccine may be from 60 to 75 per cent effective in preventing the disease. Certainly those who know how numerous and serious are the complications of this dread disease will agree that a sore arm for a day or two is small price to pay for the protection afforded.

The only contraindication to giving the vaccine is a known allergy to eggs or chicken—since the vaccine is produced in eggs.

* * *

HEALTH CAREERS CONFERENCE

The North Carolina Health Council lists more than 60 members organizations—including the North Carolina State Medical Society, the state's three medical schools, the State Nurses' Association, and many, many others.

The Council adopted as a major project for 1962 a Health Careers Program to stimulate recruitment in all health field professions. As a result a Health Careers Conference was held in Winston-Salem, May 22. The summer issue of the Health Council's news letter gives a summary of the conference, prepared by Dr. Courtland Davis. This summary will be found in the Committees and Organizations of this issue of the JOURNAL.

* * *

DEATH REAPS A RICH HARVEST

It is hard to recall when so many prominent members of our Society were called to their reward within one season as has been the case within the summer just past.

Dr. Irene McCain McFarland died in her sleep on July 4. Dr. Arthur Valk, who was Winston-Salem's first full-time surgeon, died on August 9. Dr. Lunsford Long, internist of Raleigh, met a tragic death from the accidental discharge of a shotgun on August 15. Dr. John C. Tayloe of Washington, died the day before the Executive Council met in Durham; and Dr. Westbrook Murphy's useful career ended on September 18.

In her short career, Dr. McFarland lived up to her rich medical heritage. Her father, Dr. Paul McCain, was for many years superintendent of the tuberculosis sanatoriums in North Carolina, and was a past president of the State Medical Society. Her mother was active in the Auxiliary. It has often been said that they were the best loved couple in the State Society. Her grandfather, Dr. L. B. McBrayer, was president and for many years secretary of the State Society. Her brother, Dr. John McCain, is

practicing internal medicine in Wilson. It is fitting that he is now president-elect of the Mental Health Association.

When Dr. Valk came to Winston-Salem in 1912, there were only two specialists in Winston-Salem—both eye, ear, nose, and throat men. He was the first doctor in Winston-Salem, and one of the first in North Carolina, to limit his work to surgery. His ability, judgment, integrity, and personality soon brought patients to him from far and near. When the Bowman Gray School of Medicine opened in 1941, he was one of the local physicians who cast his lot with it by moving his office into the school and becoming professor of clinical surgery. His diagnostic ability and surgical skill made him an inspiring teacher.

Dr. Lunsford Long was one of the leading internists in Raleigh. He was a nephew of the late Dr. Tom Long, who was for many years secretary of the State Medical Society and an influential member of our state legislature.

Dr. John Cotten Tayloe, a well loved obstetrician, came from a family long distinguished in North Carolina medicine.

Dr. Murphy's ability made him one of the state's leading radiologists—but he found time to serve the State Medical Society faithfully in many ways: as a member of the Board of Medical Examiners, as president of the Society, as speaker of the House of Delegates, and as a member and chairman of the Editorial Board of the NORTH CAROLINA MEDICAL JOURNAL. His address before the General Session of the State Society in May, 1956, "A Little Leak Will Sink a Great Ship" (published in that month's issue of the NORTH CAROLINA MEDICAL JOURNAL), created nationwide interest. Thousands of reprints were called for and distributed by the American Medical Association and other interested groups and individuals.

To the surviving loved ones of these medical leaders the NORTH CAROLINA MEDICAL JOURNAL offers sincerest sympathy, and also the comforting thought that their memories will long be cherished by colleagues, and by friends and former patients.

President's Message

POLICY STATEMENT ON MEDICAL CARE FOR THE AGED BY THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA

In the year 1960 the Medical Society of the state strongly endorsed Kerr-Mills principles for health care of the aged. This bill was passed and signed into law by President Eisenhower on September 13 of that fall. Immediately, the Legislative and Chronic Illness Committees of the State Medical Society started working towards implementation of this measure in North Carolina. After meeting with a number of interested groups, a decision was made to introduce a bill in the North Carolina General Assembly which would enable medical care for the aged under Kerr Mills legislation. The Kerr-Mills Act included several amendments to the Social Security program of the United States. Immediately, monies that were being used to pay for hospitalization under the Hospitalization Pooled Fund, Old Age Assistance program, were increased in a 65% to 80% ratio on a matching basis. Also, funds became available for general hospital payment for patients with tuberculosis and mental illness.

The General Assembly of 1961 voted transfer of funds from the Medical Care Commission to the Welfare Department. The Medical Care Commission had been receiving \$325,000 per year for many years to help pay for hospitalization of all ages of medically indigent patients. Through this, a token payment of \$1.50 a day was distributed. By transferring this sizable amount of money into the Welfare Department it was then possible to use matching funds from the federal government on an 80% federal money, 10% state and 10% county money basis, thus, enabling a marked increase in the amount of funds available for payment of hospitalization for all age groups, including patients past 65. This has been called "no money payments" and has been used rather successfully during the past two years.

The 1961 bill that was agreed upon by the various interested groups was introduced into the house by fourteen members of the

General Assembly, headed by Dr. Rachael Davis of Kinston. Several amendments and changes were made in the original bill, but after review by the Committee it was sanctioned and passed by the House without a dissenting vote. It was then referred to the Senate for consideration. The Senate upon debate tabled the measure two days prior to its adjournment in June, 1961. This was quite a surprise and a disturbing blow to those who had the desire for the implementation of the medical care for the aged through the Kerr-Mills program. I might add, the program made available through the transfer of funds from the Medical Care Commission to the Welfare Department has resulted in marked savings to the counties for hospitalization payments on medically indigent patients. For instance, it has been stated that the counties, in 1961, spent \$3,400,000 for general assistance to the medically indigent patient. In 1961-62, the amount spent was reduced to \$1,800,000 because of the matching funds available, reducing the cost to the counties, for this phase of hospitalization payments. Therefore, by transferring the funds to the Welfare Agency, the county funds were released and made available for use in other areas to the extent of \$1,600,000 in fiscal year 1961-62. Also, during this year the \$325,000 was not used in its entirety; in fact \$100,000 reverted to the State Treasury because of lack of use during the year ending June 30, 1962. This may show a slight discrepancy in reality because the program had not gotten into effect completely and it is felt that those funds and perhaps more would be needed during the next biennium for payments in the "no money payment" category for hospitalization.

What has been the reaction to Kerr-Mills program since adjournment in the 1961 General Assembly? In the first place, there have been many people who voted against implementation of the Kerr-Mills program at that time who now have re-evaluated the

situation and speak favorably towards the program. They realize that there is a need for health care for a portion of the people past 65, and they now feel that this need would be best taken care of through this locally administered program. Thus, many former opponents have developed into proponents of medical assistance for the aged (MAA). I think the educational program for the people at the Madison Square Garden program on May 20 and 21 had much effect on this over-all reaction of our people for this particular measure. Since then, favorable sentiment has developed rapidly towards taking care of our problems for the aged by utilization of federal monies on a matching basis with the direction of the program being based in local and state areas rather than in Washington.

With this in mind, and in view of the fact that we have contacted many of the candidates who are now running for re-election for the General Assembly, we feel that it is time for us to make a statement as to our policy for the future. In presenting the following, we feel that we have investigated the needs of those past 65 and that this will give the aged the best in health care in North Carolina. As physicians, we will do our best to give them benefits of the program that is available. The following plans are outlined:

1. A simple bill should be introduced in the General Assembly of North Carolina to implement the medical assistance for aging program under the Kerr Mills appropriation and local directions.
2. That the administration of this program will be under the direction of the State Welfare Department as a single State Agency.
3. That the divers services will be made available according to the monies appropriated by the General Assembly.
4. It is the attempt of the Medical Society at this time to outline priorities of services recommended for the bill as seen by our organization . . .
 - a. Institutional phase would consist of *hospitalization*

- b. The noninstitutional phase would have as the first four priorities; namely, (a) *outpatient services in hospitals or other qualified facilities*, (b) *drugs*, (c) *dental services*, and (d) *home nursing care*.

It is felt that the type and quantity of these particular services should be decided upon by appropriate organizations in conjunction with the welfare agency who will direct the over-all program.

5. As obtained from results of the many surveys and reviews on our part in conjunction with the Welfare Department and others, we have estimated that the cost to implement the additional services on a noninstitutional basis would be in the neighborhood of \$750,000 per biennium. One must realize that already the last general assembly transferred funds into the Welfare Department and committed these for hospitalization payments, so we have an institutional phase of the program already in operation and functioning quite satisfactorily.

With this basic policy statement as outlined, we anticipate obtaining sufficient support from the members of the General Assembly to obtain passage of this bill in the early period of the 1963 General Assembly. To do this, it will be necessary that many of you on the local scene understand the over-all program and policies of the Medical Society and assist in passing this information on to the various candidates during the fall, and after election date, contact them again prior to their leaving for Raleigh for the Assembly. Our representatives in Washington have pointed out in correspondence and publications through news releases in the state that they are, in most instances, strongly in favor of implementation of the Kerr-Mills Act. This is an important factor because of their realization of what it really means to the people in North Carolina.

I have not gone into details about the monies to be saved by Kerr-Mills implementation nor the controversial issue of this type of program versus the Social Security mechanism for payment of the program, but

I have here outlined the fundamental policy of our Society in the care of the aged.

In view of the above statement being pertinent to our cause, I want to strongly emphasize that there is another most important program in the medical care of the aged individual. This consists of voluntary health insurance programs. There are several to be presented during the fall months for a full enrollment of all people past 65. There is underway at this time, a program by Blue Shield to enroll all people past 65. This will be a new Service Program at a very low premium charge. Likewise, I am sure that a similar companion service program has and will soon be recommended and authorized through the Blue Cross for hospitalization. Commercial companies are also putting on drives to enroll as many as possible past 65 in new programs for health and hospital insurance. There has been a marked increase in the number of people in North Carolina, past 65, who now have some form of health and hospital insurance. A few years ago this number was very low. Today we have over 54% carrying some type of health and hospital insurance and I am sure that with the new enrollment campaign, this will increase to 65% and 70% . . . A very outstanding contribution to the health care of the aged individual.

The Medical Society does herewith pledge its support for implementation of this Kerr-Mills Act to both the people of our state and to our representatives in Washington; and therefore, everything possible will be done to see that it is implemented during the next General Assembly.

JOHN ROBERT KERNODLE, M.D.

* * *

RELATIVE VALUE STUDY

The Relative Value Scale Study, adopted by the House of Delegates of the Medical Society of the State of North Carolina on May 7, 1961, has been printed on authority of the Executive Council. Single copies are available without charge to the Society membership on request from the Medical Society Headquarters Office, P. O. Box 790, Raleigh, N. C. Extra copies may be purchased at a cost of \$2.06 (including tax) per copy, applicable as well to any other individual or agency properly qualifying for this information.

CLINICOPATHOLOGIC CONFERENCE

*Forsyth County Heart Symposium
Winston-Salem, October 7, 1960*

EDWARD S. ORGAIN, M.D.*

DURHAM

and

HARRY M. CARPENTER, M.D.†

WINSTON-SALEM

A 52 year old married man was admitted to the North Carolina Baptist Hospital on June 11, 1960, with the primary complaints of abdominal swelling and shortness of breath. He had been a painter and utility man for Western Electric Company for 10 years, but had been unable to work for the past three years because of ill health. Before being employed by Western Electric, he had been a farmer.

The patient's general health had been excellent until April, 1952, when he was hospitalized for repair of an umbilical hernia. In March, 1956, he was hospitalized at City Memorial Hospital in Winston-Salem because of a sudden onset of retrosternal pain radiating into the jaws, accompanied by sweating, cyanosis, vomiting, and moderate hypotension. An electrocardiogram on admission was normal; however, serial electrocardiograms revealed inversion of T waves in leads 2, 3, and AVF. He was thought to have had a myocardial infarction and was treated with anticoagulants. He made an uneventful recovery and returned to his job of spray painting, which occasionally required the use of organic solvents including carbon tetrachloride. He was able to continue his hobby of hunting, and had no symptoms referable to the cardiovascular system.

One year later, in March, 1957, a second myocardial infarction occurred, with marked electrocardiographic changes indicating an extensive anterolateral infarction. Anticoagulants were again employed and recovery was slow, with the liver becoming

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palpable as he became ambulatory. Following discharge he had several episodes of anginal pain, and exertional dyspnea and ankle edema developed. Chest roentgenograms taken during this period demonstrated increasing cardiac enlargement and pulmonary hyperemia. A third myocardial infarction occurred nine months after the second, and was complicated by either right lower lobe pneumonitis or pulmonary infarction. This episode was followed by striking enlargement of the liver, ascites, and dependent edema. Persistent and massive ascites and edema which responded poorly to therapy forced his retirement from work. For the next three years he was treated with digitalis, mercurial and oral diuretics, and paracentesis intermittently. In February, 1959, a liver specimen revealed slight periportal fibrosis.

He was referred to Duke Hospital for further evaluation in March, 1959. Pertinent physical findings reported at that time were as follows: The blood pressure was 140 systolic, 70 diastolic. Some observers described a paradoxical pulse. There was an obvious increase in venous pressure over the arm veins, without cervical vein distention. Moist rales were heard over both lung bases. There was moderate cardiomegaly and an occasional irregular beat, a grade II precordial systolic murmur, a protodiastolic gallop, and an accentuated P2. Marked ascites was present, and the liver edge was felt 5 cm. below the right costal margin. There was eosinophilia of 6 per cent. Bromsulphalein retention was 17 per cent, but other liver function studies were normal. It was felt that the hepatomegaly and ascites were secondary to congestive heart failure rather than to primary disease of the liver. Cardiac catheterization and angiocardigraphy were considered; however, the patient released himself from the hospital before any additional studies were done.

During the next 15 months he was seen every few weeks and was treated with diuretics, including Aldactone, and repeated paracentesis. Eight weeks prior to admission here he was again hospitalized at Winston-Salem City Hospital for excision of a

benign lesion in the right breast. Because of abdominal swelling beyond that experienced previously, causing considerable dyspnea and discomfort, he came to the emergency room of this hospital and was admitted. He denied excessive use of alcohol, and there was no history of jaundice, hepatitis, hematemesis, or melena. There had been no fever or weight loss during the preceding year, and there was no known history of parasitic disease.

Physical examination

The blood pressure was 100 systolic, 70 diastolic. The oral temperature was 97.4 F., and the pulse 86 per minute. His general appearance was that of a poorly nourished, chronically ill middle-aged man who appeared slightly younger than his stated age of 52. There was audible wheezing and obvious respiratory effort. The skin of the hands and face was tanned. There was marked telangiectasia of the cheeks. Typical "liver palms" but no spiders were evident. Small varicosities were present over the lower extremities, with slightly increased pigmentation. There was no significant peripheral lymphadenopathy. The fundi were normal.

The neck was normal, with no venous distention. Dullness to percussion and moist rales were noted over both lung bases, particularly on the left. The PMI was in the sixth intercostal space at the anteroaxillary line. There was a grade II blowing apical systolic murmur and a prominent third heart sound heard at the apex, which was considered by some observers possibly to represent a diastolic murmur. P2 was considerably louder than A2. Occasional premature beats were noted.

At the time of admission no abdominal masses or organs were palpable, owing to the presence of marked ascites. Following paracentesis the liver edge was palpable 5 fingerbreadths below the right costal margin, and was firm and nontender. There was 4 plus pitting edema of the legs, and moderate edema over the sacrum and lower abdominal wall. The neurologic examination was unremarkable. A rectal exami-

nation was normal except for the presence of external hemorrhoids.

Accessory clinical findings

The urine was clear, with a specific gravity of 1.027 and an acid reaction. There was no glycosuria or proteinuria. The sediment contained only a rare granular cast, an occasional hyalin cast, and 0 to 1 white blood cell per high power field. The hemoglobin was 12.0 Gm. per 100 ml., with a hematocrit of 44 volumes per cent. The leukocyte count was 12,000 with 81 per cent segmented neutrophils and 2 per cent eosinophils. The reticulocyte count was 2 per 100 ml. A routine serologic test for syphilis was nonreactive.

Chemical analysis of the blood revealed the following: blood urea nitrogen, 22 mg. per 100 ml; fasting blood sugar 62 mg. per 100 ml.; total serum proteins, 5.6 Gm. (albumin 2-8 Gm.) per 100 ml.; carbon dioxide combining power, 22.5 mEq. per liter; chlorides, 94 mEq. per liter; total serum bilirubin, 0.4 mg. per 100 ml. The alkaline phosphatase was 24 and 23 Bodansky units on two occasions. The thymol turbidity was 0.6 and cephalin flocculation was 1 plus. Bromsulphalein retention was less than 5 per cent. Venous pressure was 260 mm. of water, and the arm-to-tongue circulation time was 47 seconds. The stool was negative for occult blood. Ascitic fluid protein was 475 mg. per 100 ml. There were 2500 red blood cells and 50 white blood cells per cubic millimeter. Ascitic fluid cytology was class I.

Roentgen studies of the chest with the use of barium revealed generalized cardiomegaly including the right ventricle, the left ventricle, and the right atrium, without evidence of pulmonary hyperemia. There was no evidence of esophageal varices. On fluoroscopic examination cardiac pulsations were thought to be diminished; no intracardiac or pericardial calcification was noted. An electrocardiogram revealed sinus arrhythmia and right axis deviation, and was interpreted as representing an old posterior myocardial infarction and digitalis effect. A radiocardiogram revealed marked prolongation in the appearance times be-

tween the heart and abdominal aorta, which was thought to be compatible with valvular heart disease and congestive failure.

Course in hospital

On the evening of admission paracentesis was performed and resulted in considerable relief of the respiratory distress. The fluid was slightly cloudy and yellow-brown in color. Approximately 9000 cc. of fluid was removed in a period of some nine minutes. The patient tolerated this procedure well, and 36 hours later the serum electrolytes were as reported above. He was treated with bed rest, a 200-mg. sodium diet, digitalis, vitamins, and hydrochlorothiazide with potassium supplement. In four days his weight fell from 163 to 130 pounds, slightly more than half of this loss having resulted from paracentesis. He stated that he felt considerably improved. His general condition remained good, with a blood pressure in the neighborhood of 90 to 100 systolic, 60 to 70 diastolic, and with a pulse rate of about 70.

On the sixth hospital day he suddenly expired under the following circumstances: While sitting up eating lunch, he complained to his roommate of feeling ill and within a few seconds fell to the floor. When ward personnel arrived, he was unresponsive and deeply cyanotic, with infrequent gasping respirations. There was no response to the administration of oxygen. Permission for autopsy was granted.

Clinical Discussion

DR. ORGAIN: Over 40 years ago Richard Cabot first introduced the so-called "blind C.P.C." as a teaching exercise for students. These were exercises given extemporaneously and without preparation. As time passed the purpose of the C.P.C. seems to have become an exercise in mental gymnastics, testing the acumen of the clinician in diagnosing what is rare and bizarre. However, the C.P.C. should remain a teaching exercise, not a guessing game, though the temptation is usually present. A diagnosis should be reached from a logical deduction of the facts, starting at the common and later considering the rare diseases. If the clinician can bat .500 he is doing well.

In summary, this is the case of a 52 year old farmer, painter and utility man, who enjoyed good health until 1956 when at the age of 48 he had a diaphragmatic wall infarction from which he made a good recovery. He suffered the second infarction one year later in March, 1957, with diaphragmatic and anterior wall involvement, and thereafter developed dyspnea, ankle edema, and a palpable liver associated with progressive cardiac enlargement. His third infarction in December, 1957, was followed by striking liver enlargement, ascites, edema, and incapacitation. From this point his course was characterized by dyspnea, weakness, and ascites out of proportion to peripheral edema, which required a rigid anticongestive program including numerous paracenteses, and which finally culminated in sudden death after paracenteses and diuresis to a total weight loss of 33 pounds.

There can be little doubt that this patient had coronary heart disease with three episodes of myocardial infarction documented by electrocardiogram, and subsequently experienced progressive cardiac enlargement and chronic congestive heart failure involving both left and right ventricles. The large heart with protodiastolic gallop rhythm, the lung rales, and the x-ray findings attest to left ventricular failure; while the elevation in venous pressure with distended veins, and the enlarged liver with ascites and edema, are compatible with right heart failure. Delayed circulation time and radio-cardiogram were also consistent with congestive failure.

The loud P2, hilar congestion, and prominent pulmonary artery demonstrated by x-ray would be consistent with pulmonary hypertension secondary to left heart failure. Although left heart failure is the common cause of right heart failure, progressive right-sided failure should suggest that pulmonary emboli from edematous leg veins or prostatic veins may have "seeded" the lungs, a condition often unrecognized by x-ray examination. This combination, along with cardiac cirrhosis of the liver, would be a common sequence of events.

In some patients with hypertension, aortic stenosis, or infarction of the interven-

tricular septum, the large left ventricle may appear to encroach upon the right ventricle, presenting the "Bernheim syndrome" with relatively clear lungs and predominant right-sided heart failure. In such cases, when measured by catheter, both the pulmonary artery pressure and the pulmonary wedge pressure are elevated, indicating that the obstruction is not at the right ventricular level but rather at the left side of the heart.

In view of the extensive cardiac damage indicated by history and by multiple electrocardiograms showing involvement of the diaphragmatic, the anterolateral wall, and probably the posterior wall of the heart, together with progressive cardiac enlargement and a gradual downhill course, ventricular aneurysm should be suspected. The slight but persistent elevation of the ST segments in leads 3 and AVL is consistent but not diagnostic. Fluoroscopic evaluation was not reported to confirm this possibility, but I strongly suspect it. Ruptured interventricular septum is usually associated with a more rapid downhill course and death. A ruptured papillary muscle or chordae tendineae should give murmurs of considerably greater magnitude. Massive thrombosis within the left ventricle or even the right ventricle secondary to infarction is a possibility without supporting data. Tumor of the heart, primary or secondary, should be thought of in any instance of chronic progressive heart failure.

One of the striking findings was the huge liver with ascites out of proportion to peripheral edema. In the face of normal plasma proteins initially, this would bring up such possibilities as constrictive pericarditis, restrictive fibrosis, and fibroelastosis. There is little to suggest that any of these were actually present. Rupture of the left ventricle leaking blood to the pericardial sac could be a sequel to the infarction, causing tamponade initially and constriction later. A paradoxical pulse of 8 mm. Hg was noted, but this is not beyond the limits consistent with a large left ventricle alone and therefore not diagnostic. Initially the electrocardiogram showed a late R deflection in V1, but this is not sufficient evidence on

which to make a diagnosis of auricular septal defect, nor is there any evidence for mitral or tricuspid stenosis *per se*.

In the presence of the large liver and ascites out of proportion to peripheral edema, there was one discordant finding with relationship to congestive heart failure and cardiac cirrhosis. This was the striking elevation in alkaline phosphatase (24 Bodansky units) in the presence of a normal bilirubin and but slight retention of bromsulphalein dye. In most instances this degree of elevation in alkaline phosphatase is associated with Paget's disease, metastatic carcinoma, biliary tract obstruction or some infiltrative disease of the hepatic parenchyma. In spite of the history of slight alcohol intake and the controversial liver biopsy, there is no indication that this is actually primary cirrhosis of the liver, nor does the picture fit that of carbon tetrachloride poisoning to which the patient was exposed as a painter.

Periarteritis, lupus disseminatus, amyloid disease, sarcoid, tuberculosis, and Hodgkin's disease are all multiple system diseases associated with liver involvement, in which a high alkaline phosphatase may be evident. Lupus disease causes pericarditis, amyloid may give the picture of restrictive myocarditis, and polyarteritis might involve the coronary arteries. The absence of arthritic symptoms, renal lesions, and hypertension would militate against these possibilities.

We have no evidence for Paget's disease, bone destruction, biliary tract obstruction, nor actual metastatic carcinoma of the usual variety from the bronchus, the gastrointestinal tract or the prostate. Malignant carcinoid, exhibiting part but not all of the carcinoid syndrome, is a distinct possibility since this lesion may be fairly silent in the intestine, metastasize to liver and lung, and involve the right side of the heart, causing tricuspid and pulmonary valve lesions, pulmonary hypertension, and predominant right-sided failure. This would have to be a superimposed syndrome, not a primary one.

And finally, one must consider inferior caval or hepatic vein obstruction. Inferior

vena caval obstruction at the hepatic level to produce ascites would be expected to give urinary abnormalities as well. Hepatic vein obstruction concomitant with heart failure would produce a large liver and ascites, but would not alone elevate the alkaline phosphatase.

In this review, I hope at least to have mentioned the major diagnosis or diagnoses that will be evident pathologically. The clinician, however, must present a final conclusion representing the most likely possibilities as a logical deduction from the data given. These I have divided in three major phases.

Clinical diagnoses:

1. Coronary heart disease with cardiac enlargement, multiple myocardial infarctions, probably ventricular aneurysm, chronic congestive heart failure, and cardiac cirrhosis of the liver.

2. Because of their common occurrence, multiple pulmonary emboli leading to pulmonary hypertension and progressive right-sided heart failure. This suggestion is made primarily from the teaching standpoint but is too simple to expect here as the *only* major complication of the disease.

3. The high alkaline phosphatase out of proportion to prolonged cardiac failure with cardiac cirrhosis, strongly suggests the possibility of: (1) metastatic carcinoma from the bronchus or gastrointestinal tract to the liver; or (2) an infiltrative disease of the hepatic parenchyma, such as amyloid, sarcoid or Hodgkin's disease; or (3) malignant carcinoid of the intestine with metastases to liver and lung. (A bronchial carcinoid with metastases to the liver has been reported.) For none of these do we have defensible data to confirm the diagnosis.

The mechanism of death was probably one of acute rhythm disturbance, such as ventricular tachycardia, ventricular fibrillation and death. This may have been precipitated by potassium loss secondary to paracentesis and diuresis, but prior episodes of tachycardia had been noted. Rhythm disturbance seems more likely than recurrent infarction or pulmonary embolism.

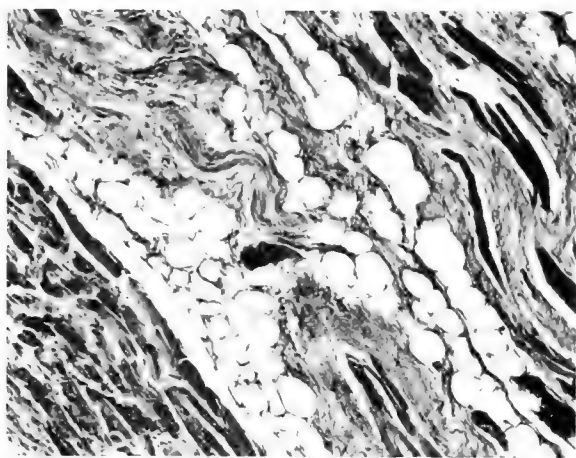


Fig. 1. Interventricular septum with 43 per cent of the myocardium replaced by fat (hemolysin and eosin stain; magnification X32).



Fig. 2. Myocardial fibrosis and fat infiltration (hemolysin and eosin stain; magnification X127).

Pathologic Discussion

DR. CARPENTER: The primary syndrome demonstrated by this patient is neither rare nor bizarre. It does, however, demonstrate a common error in medical thinking—namely, that the “average” picture represents 100 per cent of the cases. Although the usual case of coronary sclerosis, coronary thrombi, and myocardial infarcts is not associated with massive cardiomegaly, it is by no means rare to see hearts large enough to suggest primary valvular disease. The heart in this case was increased in weight by one-third.

The tricuspid and mitral valves were dilated 18 and 13 per cent respectively. The semilunar rings were not dilated, and the liver and spleen were increased in weight by 21 and 33 per cent respectively. In both cases the findings were those of passive hyperemia. The alkaline phosphatase values re-emphasize the first point—namely, that an occasional case of congestive heart failure is associated with unusually high values of this enzyme in the serum.

The most interesting anatomic finding relates to massive myocardial infiltration of fat (figs. 1 and 2). The left and right ventricle and interventricular septum were replaced by fat to the extent of 17, 26 and 43 per cent. This condition, sometimes called “beer drinker’s heart,” has been discovered

in approximately 3 per cent of the autopsies performed at the North Carolina Baptist Hospital. It is more often an incidental microscopic finding of little or no clinical or anatomic importance. It is decidedly and significantly more common in women, and tends to be associated with a higher incidence of postinfarction myocardial rupture, a condition also more common in women. The incidence of degenerative cardiovascular disease is also higher in patients with myocardial fat infiltration. This is particularly true of myocardial fibrosis, an anatomic finding usually indicative of previous coronary artery insufficiency.

The case in question represents a most striking degree of myocardial fat infiltration. Although clinically undetectable by any means short of histologic examination of tissue, it may explain in part why this particular patient had such massive and intractable congestive failure. The fat probably arises through metaplasia of loose connective tissue. As myocardium undergoes ischemic degeneration and/or necrosis, dead fibers are removed by macrophages and the affected areas are “healed” by proliferation of fibrous tissue and scar formation. In this case, the fibrous proliferation was associated with fat metaplasia; both findings confirm the original impression of long standing coronary artery insufficiency. The term “fat infiltration” is obviously a poor one,

for in no sense does the fat actually grow in to replace otherwise normal myocardium. Fat infiltration occurs in many sites secondary to other intrinsic processes. Replacement of destroyed renal parenchyma in pyelonephritis is perhaps the best example.

Pathologic Diagnoses

1. Coronary atherosclerosis with thrombi in left anterior descending, left circumflex and right coronary arteries, recent and old.
2. Myocardial fibrosis, interventricular septum and posterior basal right and left ventricles, marked, consistent with healed myocardial infarcts.
3. Myocardial fat infiltration, interventricular septum, posterior basal and apical ventricles, marked.
4. Myocardial hypertrophy (460 Gm.).
5. Cardiac dilatation.
6. Congestive heart failure with:
 - a. Pulmonary alveolar hemosiderosis
 - b. Pulmonary fibrosis
 - c. Hydrothorax, bilateral
 - d. Ascites
 - e. Hepatic and splenic passive hyperemia
 - f. Edema, dependent (4 plus).

North Carolinians Attend A.M.A. Institute

Six North Carolinians attended the A.M.A. Institute held in Chicago on August 30 and 31. They were Dr. John R. Kernodle, president of the State Medical Society; Dr. David G. Welton, public relations chairman; Dr. A. Ledyard DeCamp, legislative chairman from the Mecklenburg County Medical Society; Mr. James T. Barnes, executive secretary of the State Society; Mr. William N. Hillard of the state public relations office, and Dr. W. Wyan Washburn.

Dr. Welburn and Dr. Washburn participated in a panel on "The County Medical Society and Community Health," of which Dr. Millard B. Bethel, director of the A.M.A. Department of Environmental Health was moderator. Dr. Welton's contribution to this panel will be published in an early issue of the NORTH CAROLINA MEDICAL JOURNAL.

Committees & Organizations

HEALTH CAREERS CONFERENCE*

Winston-Salem, North Carolina,
May 22, 1962

Theme: Personnel for Progress Meeting Our Growing Health Needs

SUMMATION AND COMMENTS

COURTLAND H. DAVIS, JR., M.D.
WINSTON-SALEM

The problems facing us in meeting the need for personnel in all health fields were outlined by Mr. Griffenhagen, Mr. Cranford, and Dr. Whicker as follows:

1. We must maintain and replace personnel, and we must meet the needs of an expanding population and a rising health consciousness.
2. We must combat the harmful effect that current political ballyhoo is having on image and recruitment.
3. We must combat apathy on the part of the practitioner concerning career guidance.
4. We must combat the impression that many professions are closed corporations.

Dr. George W. Albee, in his book "Mental Health Manpower Trends," says that we will never have enough professional personnel to keep pace with population growth unless recruiting and training efforts are stepped up. He adds that at present success in recruitment is at the expense of robbing Peter to pay Paul¹.

Mr. Griffenhagen said that the key word in our problem is *cooperate*. Each health group must cooperate in promotion. Perhaps even more a key was his phrase,

*Conference participants referred to in Dr. Davis's summary are as follows:

Dr. Samuel J. Tesch, pastor, Immanuel Moravian Church, Winston-Salem; George B. Griffenhagen, director, Division of Communications, American Pharmaceutical Association; Dr. Grady Whicker, admissions officer, High Point College; H. C. Cranford, Jr., public relations director, Hospital Care Association; Nile F. Hunt, director, Division of Instructional Services, State Department of Public Instruction; Mrs. Medora Y. Hill, counselor, Atkins High School, Winston-Salem; Miss Ella Stephens Barrett, supervisor, Guidance Service, State Department of Public Instruction; Mrs. Allen B. Hassell, director, Guidance Services, Durham County schools; Edson E. Bates, Jr., supervisor, Industrial Services, Employment Security Commission of North Carolina; Miss Nancy Carr, president, North Carolina Health Careers Clubs.

"Health needs more people; youth needs more guidance."

Health Needs More People

Mr. Cranford summarized the need for professional personnel in North Carolina at the present time and in the projected near future. For instance, while physicians are nearly adequate in number, it is obvious to anyone familiar with the field that there are real problems of distribution. He also mentioned that the trend toward specialization creates the problem of finding equalized services for the people of North Carolina. To this reviewer, there is a cause and effect relationship between this problem and the other cited by Mr. Cranford—namely, the marked expansion in scientific knowledge within the past few years.

Concerning the need for more people, Mr. Hunt brought out the fact that our professional population is now largely made up of those born in the 30's, a time of relatively low birth rate. These people are charged with the care of the bursting population made up of those born in the 40's, during and after the war years, and compounded by the extension of the life span by at least 10 years which has been accomplished in our life time.

Answers to these problems seem to be as follows:

1. As the people born in the 40's enter their life careers, it is incumbent on all of us to see that they achieve education appropriate to their ability and that they are properly guided in choosing careers.

2. Even at the present time, there are significant loss factors in the effort to achieve maximum potential from our population. In the book cited earlier, Dr. Albee further states that 40 per cent of the high school graduates in the top fourth of their classes do not go on to college; only 35 per cent of college students rating in the top tenth in intelligence are graduated; less than 2 of 100 who have ability equal to the upper half of the students who complete the doctorate go on to achieve it.

That there is adequate opportunity is attested by Mr. Cranford, who said that North Carolina has adequate schools and scholarship programs.

Youth Needs More Guidance

This part of the problem and its solution may be broken down as follows: (1) challenge, (2) guidance, (3) training, (4) distribution, (5) new uses for people, (6) revolution in care.

Conference speakers repeatedly stated that we must *challenge* students—we must whet their interest. In doing this, those of us in health careers must assert the attractiveness of the career opportunities in our chosen profession. If there are facets of our work which dampen our enthusiasm, then we must make them known and correct them. It is imperative, both from the standpoint of opportunity for the school-aged child and from the standpoint of meeting our health manpower needs, that the intellectual frontiers of health services be made known to every youngster capable of meeting the challenge.

Participants in the conference outlined various mechanisms for accomplishing this purpose including *publications, films, exhibits and displays*. In order for these aids to be effective, general materials and local facts are needed. Several discussants described their career kits and their use of visual aids in school programming. It seems to be particularly valuable to notify local professional people that inquiries about their careers have been made, thus providing an opportunity for follow-up discussions. Additional means of presentation are *science projects* in schools and fairs, *career days, open-house sessions, health career clubs, volunteer jobs, and resource people*. Of particular value here is the presence of a doctor or nurse on the local scene.

In his recent article, "Money Isn't Everything," Edward T. Chase² reminds us that choosing a career is a relatively new phenomenon for most people and depends on the following prerequisites which are unique in our time: (1) Freedom from excessive pressure to earn a "buck," allowing choice by ideas and notions of what is worth doing. It has allowed realization of the tenet, "Earning one's living is at the same time living one's life." This is further made possible by (2) mass education—which is expanding, should expand, and is the source

of our needed personnel. (3) The final need is guidance.

As stated by Mrs. Hill, "The counselor acts as the mediator in the reciprocal relationship between the student and society." In their panel, Miss Barrett and Mrs. Hassell outlined the principles of school guidance. The program is broken down into a longitudinal profiled study which gives *information about* the student. Materials are provided, giving *information for* the student. Then the student is so guided as to allow him to take full advantage of his abilities and to help him grow in *self-guidance*.

Dr. Whicker added that this guidance relationship is not only vocational but social and emotional, helping the student to establish self. The need and usefulness for career guidance obviously continues after the school years.

Mr. Bates noted that our country now faces a relatively high level of unemployment and at the same time an acute shortage of trained people in special fields. Through the development of general aptitude tests and tests for temperament and motivation, and with the expansion of technical training programs, ways of solving this problem will be at hand.

Motivation and rewards were further discussed by Mr. Cranford and Miss Carr. It is generally held that in choosing careers, the factors of satisfaction of service and stability of employment, financial status, and opportunities for advancement are important. It was agreed that satisfaction of personal service is, and should be, the principal motivating influence for the young person seeking a career in the health field.

The challenged and guided student finally needs proper training facilities to develop his potential. Both he and the state as a whole need a more effective distribution of trained people. Training programs and distribution depend on a suitable environment in school, community, and state. The school must have an atmosphere of academic excellence and freedom, and the community must be one where gratifying service can be performed and where the intelligent, trained person is happy to raise his family.

It seems to this reviewer that the community which cannot attract basically needed personnel should critically re-examine its needs and its environment.

If, as seems likely, some degree of relative shortage shall continue, it is imperative that we experiment with new ways to use personnel to widen the application of health services. Mr. Bates reminded us that we should check job qualifications and find those jobs which can be filled by trained technicians, thus freeing the college graduate for broader service. This is now being done to a certain extent in the technical schools. An excellent example of good local application of this principle is the development of the excellent programs for training licensed practical nurses to take over many of the duties formerly performed by the more highly trained registered nurses.

Not specifically mentioned in the conference, but obviously needed in all science fields, are people with research interest and potential. These are the people who will make revolutions in care and who, we hope, will find better solutions for the problems of congenital deformity, cancer, heart disease, and disabilities of aging than those now at hand.

References

1. Albee, G. W.: *Mental Health Manpower Trends*, Joint Commission on Mental Illness and Health, Monograph Series No. 3, New York, Basic Books, 1959.
2. Chase, E. T.: *Money Isn't Everything*, The Atlantic, April, 1962, pp. 130-134.

JOINT COUNCIL TO IMPROVE THE CARE OF THE AGED

Frederick C. Swartz, M.D. of Lansing, Michigan, has been elected chairman of the Joint Council to Improve the Health Care of the Aged. He succeeds Charles H. Patton, D.D.S. of Philadelphia, immediate past president of the American Dental Association, who has served as Joint Council chairman since January, 1961.

Alton E. Barlow, Canton, N. Y., president of the American Nursing Home Association, was elected vice chairman of the Joint Council.

The announcement of the new officers was made by Howard I. Wells, Jr., Aurora, Illinois, who was re-elected secretary-treasurer.

The Joint Council was formed in 1958 under sponsorship of the American Dental Association, American Hospital Association, American Medical Association, and American Nursing Association.

Bulletin Board

COMING MEETINGS

North Carolina Academy of General Practice, Annual Meeting—Jack Tar Hotel, Durham, October 31-November 2.

North Carolina Society for Crippled Children and Adults, Annual Meeting—Sir Walter Hotel, Raleigh, November 8-10.

North Carolina Pediatrics Society, Annual Meeting—Sedgefield Inn, Greensboro, November 9-10.

Durham County Medical Society Health Fair—Duke University indoor stadium, March 30 - April 4.

Southeastern Section, American Urological Association, Seminar on Urology—Robert E. Lee Hotel, Winston-Salem, November 14-17.

Symposium on Neurological Diseases—U.N.C. School of Medicine, Chapel Hill, November 29-30.

Watts Hospital Medical and Surgical Symposium—Jack Tar Hotel and Watts Hospital, Durham, January 25-26, 1963.

Southeastern Allergy Association, Annual Meeting—Fort Meyer Hotel, Jacksonville, Florida, October 25-27.

American Academy of Pediatrics Meeting—The Palmer House, Chicago, October 27-November 1.

American Association for the Surgery of Trauma—The Homestead, Hot Springs, Virginia, October 29-31.

American College of Gastroenterology, Annual Convention—Morrison Hotel, Chicago, October 29-31.

Medical College of South Carolina, Founders' Day Seminar—Charleston, South Carolina, November 2-3.

A.M.A. Council on National Security, Thirteenth County Medical Societies Conference on Disaster Medical Care—The Palmer House Chicago, November 3-4.

Southern Medical Association, Annual Meeting—Hotel Fontainebleau, Miami Beach, Florida, November 29-30.

Southern Surgical Association Meeting—Boca Raton Hotel, Boca Raton, Florida, December 4-6.

Thirty-fourth Annual McGuire Lecture—Medical College of Virginia, Richmond, December 5.

American Rheumatism Association, Interim Session—John Marshall Hotel, Richmond, Virginia, December 7-8.

NEW MEMBERS OF THE STATE SOCIETY

The following physicians joined the Medical Society of the State of North Carolina during the month of August.

Drs. John Brian Reckless, Duke University Med. Center, Durham; Thomas Griffin Hardy, Jr., 301 Miller Street, Winston-Salem; John David Bridgers, Sr., 624 Quaker Lane, High Point; Melvin Frederic Eyerman, Box 244, Lillington; Wil-

liamson Ziegler Bradford, Jr., 1509 Elizabeth Avenue, Charlotte; Andrew Jackson Lewis, Jr., 225 Hawthorne Lane, Charlotte; George Sadler Edwards, 419 Whitehead Circle, Chapel Hill.

Also Drs. Robert Phillip Lacey, Forsyth County Health Department, Winston-Salem; Lewis Augustus Coffin, III, 119 Hospital Drive, Spruce Pine; John Worth Foust, 401 W. Hickory Drive, Chapel Hill; Ramon Barton Jenkins, N. C. Memorial Hospital, Chapel Hill; Donald Malvin Monson, 2615 Stuart Drive, Durham; Richard Isley Walker, N. C. Memorial Hospital, Chapel Hill; Charles Walter Stout, 1703 Shady Drive, Asheboro.

NEWS NOTES FROM THE BOWMAN GRAY SCHOOL OF MEDICINE OF WAKE FOREST COLLEGE

Appointments for seven new members of the full-time faculty of the Bowman Gray School of Medicine have been announced by Dr. C. C. Carpenter, dean.

Receiving appointments, effective September 1, were Dr. Stuart W. Lippincott, professor of experimental pathology; Dr. Robert Cowgill, associate professor of biochemistry; Dr. Charles N. Remy, associate professor of biochemistry; Dr. Fredrick L. Thurstone, assistant professor of biomedical engineering; Dr. J. R. Ravens, assistant professor of neuropathology; Dr. George S. Malindzak, Jr., instructor in physiology; and Miss Hallie M. Coppedge, assistant in psychiatric social work.

Dr. Lippincott has been associated with the Brookhaven National Laboratory since 1955. From 1946 to 1955 he was professor and executive officer of the Department of Pathology, University of Washington Schools of Medicine. A native of Worcester, Massachusetts, he received the M.D. degree from McGill Medical School.

He held academic appointments at the McGill Pathological Institute and the McGill Medical School before joining the faculty of the University of Washington Schools of Medicine. His most recent research endeavors have been in the fields of protein metabolism and radiation pathology.

Dr. Cowgill came to the medical school from the University of Colorado, where he has served as assistant professor of biochemistry since 1956. A native of Topeka, Kansas, he received the M. S. degree in 1942 from Rensselaer Polytechnic Institute and the Ph.D. degree in 1950 from John Hopkins University. He served as instructor in biochemistry at the Washington School of Medicine and the University of California before becoming associated with the University of Colorado School of Medicine. He has held a NIH Senior Research Fellowship since 1958. His principal area of research interest is the

physical chemistry of proteins; fluorescence measurements, and protein structure.

Dr. Remy has been associated with the University of New York, Syracuse since 1954 and has held the rank of assistant professor in biochemistry since 1960. Earlier he served as instructor in chemistry at Syracuse University. He has done considerable research in purine nucleotide biosynthesis and choline biosynthesis. A native of Hudson, New York, he received the Ph.D. degree from the State University of New York in 1952.

Dr. Thurstone will direct the medical school's Department of Biomedical Engineering, a service department with mechanical and electronic divisions. He has been associated with the Department of Electrical Engineering at N. C. State College since 1956. He was graduated by the University of North Carolina in 1953 and received the M. S. and Ph. D. degrees in electrical engineering from N. C. State College. His minor and thesis work were in the field of biomedical engineering. He is a native of Chicago, Illinois.

Dr. Ravens has been an assistant in neuroanatomy and neuropathology at the University of Pennsylvania School of Medicine since 1960 and has been engaged in the study of brain tumors and the development of new staining techniques for use in their diagnosis. A native of Casa Grande, Trujillo, Peru, he attended the University of Trujillo and received the M. D. degree from the Medical School of Lima, Peru. He was a member of the faculty of the University of Saint Marcus before becoming associated with the University of Pennsylvania in 1958.

Dr. Malindzak, a native of Cleveland, Ohio, has been a research associate in physiology at Ohio State University and a consultant to the NIH Advisory Committee on Computers in Research for the past year. He was graduated cum laude from Western Reserve University in 1956 and received the M.S. and the Ph.D. degrees from Ohio State University.

Miss Coppedge has been engaged in social work since 1946. For the past two years, she has served as supervisor of clinical social work at the VA Hospital in Durham. A 1945 graduate of Meredith College, she received the M.S.W. degree from the University of North Carolina School of Social Work in 1958.

* * *

Dr. Joseph E. Whitley has returned to the medical school faculty after a one-year leave of absence and has assumed his new position as assistant professor of radiology. During his leave, Dr. Whitley spent six months at the Massachusetts Institute of Technology and six months in Sweden. He was engaged in special study and research, made possible by an advanced radiology fellowship of the James Picker Foundation.

Dr. Whitley recently was awarded a senior

investigatorship by the North Carolina Heart Association. The \$36,000 grant will support three years of research on cardiovascular disorders.

* * *

Dr. Merrill P. Spencer, associate professor of physiology and pharmacology, has received a one-year leave of absence to attend the California Institute of Technology, where he will serve as visiting associate in engineering.

He plans to relate his studies, principally in the fields of engineering and physics, to the medical school's proposed program in biomedical engineering. He also plans to devote much of his time in California to the writing of a book on blood flow.

In Dr. Spencer's absence, work on his two major cardiovascular research projects continues under the direction of co-investigators, Dr. Frank R. Johnston and Dr. Adam B. Denison.

* * *

Two clinical psychologists have been added to the professional staff of the Graylyn Children's Center. They are Felix C. Gotschalk, Jr. and Miss Carol Milligan.

Gotschalk came to the Children's Center from Nicholls College, Thibodaux, Louisiana, where he served as assistant professor of psychology for the past four years. He received the B.S. and M.S. degrees from the Richmond Professional Institute of William and Mary College.

Miss Milligan has been engaged in graduate study at the University of Tennessee, where she received the M.A. degree in psychology August 24.

* * *

Two faculty members from the Department of Preventive Medicine and Medical Genetics presented papers at a meeting of the American Institute of Biological Sciences in Corvallis, Oregon. Dr. C. Nash Herndon, professor of preventive medicine and medical genetics, presented a paper entitled "Atherosclerosis Resistance and Susceptibility in Two Breeds of Pigeon." Dr. Harold O. Goodman, assistant professor of medical genetics, delivered a paper on the hereditary aspects of tooth decay and the relationship between salivary enzymes and dental caries.

* * *

Dr. Herman E. Schmid Jr., assistant professor of physiology and pharmacology, presented a paper entitled "Effect of Pressor Agents on Renal Hemodynamics and Sodium Excretion in Unanesthetized Dogs" at the Fall Meeting of the American Physiological Society. The meeting was held at the University of Buffalo.

* * *

Dr. John H. Felts, assistant professor of medicine, participated in a seminar for the cardiovascular research graduate program of the Tulane University School of Medicine. He presented a paper on "Iron Poisoning and Hemochromatosis."

Dr. Eben Alexander Jr., professor of neurosurgery, has been appointed to the Neurological Sciences Research Training Committee of the National Institute of Neurological Disease and Blindness.

* * *

Dr. C. Glenn Sawyer, associate professor of medicine, has been named a delegate to the American Heart Association's annual meeting, October 26-30, in Cleveland, Ohio.

NEWS NOTES FROM THE

DUKE UNIVERSITY MEDICAL CENTER

The Duke University Medical School began fall classes on September 10 with an increase in enrollment for the first time since World War II and a go-ahead for further enlargement of the student body as soon as possible.

The first-year medical school class has been increased from 76 to 80 students. Eleven transfer students in the second and third year classes bring the school's total enrollment to some 333 candidates for the M.D. degree, an increase of 15 over the 1961 fall enrollment.

Dr. Joseph E. Markee, assistant dean in charge of admissions, said that the increase was made possible by renovations of laboratory space and other facilities in the Medical Center.

He said also that the University's Board of

Trustees has authorized a further increase to 100 students in each entering class "as soon as faculty and facilities are available to accommodate this number."

Dr. Markee noted that at present there is no way of determining when this major increase will take place. Long-range plans for Medical Schools expansion are geared to an enrollment of 128 students in each class, making a total student body of approximately 512, he said.

Commenting on the "urgent need" for more physicians, Dr. Markee said that by 1970, the nations' medical schools will have to produce 50 per cent more doctors annually than the approximately 7,100 graduated in 1960 in order to provide adequate medical care.

* * *

Bert R. Titus, director of the Prosthetic and Orthopedic Appliance Center at Duke Hospital, has been named to a national-level committee concerned with research on artificial limbs and braces.

Titus will serve for three years on the committee on Prosthetics Research and Development of the National Academy of Sciences.

Composed of physicians, engineers and prosthetists (artificial limb specialists), the committee is responsible for correlating various Government-sponsored research projects.

1 2 3 4
clinical studies repeat...

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ARLIDIN IMPROVES HEARING²
ARLIDIN IMPROVES HEARING³
ARLIDIN IMPROVES HEARING⁴

Arlidin is available in 6 mg. scored tablets,
and 5 mg. per cc. parenteral solution.

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Protected by U.S. Patent Numbers: 2,661,372 and 2,661,373.

1 "significant hearing improvement"
occurred with Arlidin in
32 of 75 patients with recent
onset hearing impairment
due to labyrinthine
artery ischemia.

Rubin, W. and Anderson, J. R.:
Angiology 9:256, 1958.

3 Arlidin "appears to be one of
the most satisfactory
[vasodilators], having the
advantages of minimal side effects,
being well tolerated and
possessing a sustained action"
in improving circulation
of the inner ear.

Seymour, J. C.: Laryngology &
Otolaryngology 74:133, 1960.

NEWS NOTES FROM THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE

Two postgraduate courses in medicine, sponsored by the University of North Carolina School of Medicine, are now under way in Asheville and Morganton.

The courses consist of two lectures one day a week over a six-week period. The Asheville course, which began October 2, is co-sponsored by the Buncombe County Medical Society; and the Morganton course, which began October 3, is co-sponsored by the Burke County Medical Society.

All Asheville lectures will be given in the Buncombe County Medical Society Library at Memorial Mission Hospital at 5 p.m. and 7:15 p.m.

The afternoon Morganton lectures will be given at the Nurses' Home of Grace Hospital at 4:30 p.m. The 7:30 p.m. lectures will be given at the Elks' Club.

* * *

A completely new facility for children being treated at North Carolina Memorial Hospital has begun, thanks to an initial gift from the Robbie Page Memorial of Sigma Sigma Sorority, a national social organization.

Construction began in August on an isolation unit for patients in the pediatrics age group with

medical or surgical infectious diseases. The new unit will have eight single-bed rooms, each providing complete isolation.

At the present time, the hospital is limited in its ability to admit patients with infectious diseases because it lacks an isolation ward. With no isolation unit, the child often must be housed in a two-bed room. Thus, one badly needed bed is unused and unavailable for use.

Completion of the new unit is scheduled for mid-January.

* * *

Dr. Louis Gordon Welt, professor of medicine in the University of North Carolina School of Medicine, will be visiting professor of physiology at Duke University during the coming year.

Dr. Welt has been granted a leave of absence from UNC, beginning September 1, and a special fellowship from the United States Public Health Service.

* * *

Dr. George C. Ham, professor and chairman of the Psychiatric Research Training and Treatment Center at UNC, has been granted a year's leave of absence to study at three internationally known genetics laboratories. He will spend five months at the Center for Advanced Study in the Behavioral Sciences at Palo Alto, California, and shorter terms at both the Galton Laboratory of

2

vascular insufficiency of the labyrinth is an important etiologic factor in sudden perceptive deafness...

"vasodilators [Arlidin] are of considerable value."

Wilmot, T. J. and Seymour, J. C.: Lancet 1:1098, 1960.

4

early cases of sudden perceptive deafness should be treated by immediate stellate block "supplemented by the most effective vasodilator drug [Arlidin]... energetic measures to retain blood supply to the inner ear are imperative."

Wilmot, T. J.: J. Laryngology & Otology 73:466, 1959.

in impaired hearing,
tinnitus, vertigo...

when due to ischemia of the inner ear...

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Clinical benefit in approximately 50% of cases of recent onset hearing loss treated with adequate vasodilator and other supportive therapy is also reported by Sheehy.

Sheehy, J. L.: Laryngoscope 70:885, 1960.

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University College School of Medicine in London and the Mendel Institute in Rome. His study and travel will be financed by grants from the Commonwealth Fund of New York and the United States Public Health Service.

During Dr. Ham's absence, Dr. John Alexander Ewing will serve as chairman of the psychiatric center.

* * *

Four research scientists in the University of North Carolina School of Medicine attended the Twenty-Second International Congress of Physiological Sciences in Leiden, the Netherlands, September 10-17.

Congress participants from U.N.C. were Dr. A. T. Miller, professor of physiology and director of the laboratory of applied physiology; Dr. Eszter Kokas, assistant professor of physiology; Dr. J. H. Perlmutter, associate professor of physiology; and Dr. Lloyd R. Yonce, assistant professor of physiology.

* * *

Physical education leaders, athletic coaches and trainers, general practitioners, and surgeons who treat sports injuries came from all parts of the state to N. C. Memorial Hospital and the University of North Carolina on September 6 for the third annual Medical Aspects of Athletics seminar.

* * *

William M. Shuford has been appointed personnel director of the North Carolina Memorial Hospital, it was announced recently by Eugene B. Crawford Jr., director of the Hospital.

* * *

Miss Myrl Ebert, chief librarian in the Division of Health Affairs Library at the University of North Carolina and associate professor of librarianship, was elected national secretary of the Medical Library Association at its meeting in Chicago recently.

Miss Ebert joined the U.N.C. faculty in 1952, coming here from the Bellevue Medical Center Library in New York. In addition to her duties as head of the U.N.C. Health Affairs Library, she teaches two courses in medical library service.

EDGECOMBE-NASH MEDICAL SOCIETY

The monthly meeting of the Edgecombe-Nash Counties Medical Society was held on September 12, in Rocky Mount.

Dr. Leon Robertson, program chairman for the month, presented Dr. William Frohbose who spoke on Cancer of the Prostate.

AMERICAN COLLEGE OF CHEST PHYSICIANS AND SOUTHERN CHAPTER

The Southern chapter of the American College of Chest Physicians will hold its annual

meeting on November 11 and 12 at the Hotel Fontainebleau, Miami Beach, in conjunction with the annual meeting of the Southern Medical Association, November 12-15. All physicians are invited to attend the meeting. There is no registration fee.

AMERICAN INDUSTRIAL HEALTH CONFERENCE

The 1963 American Industrial Health Conference will be held March 18-21 in Washington, D. C. The Conference is comprised of the annual meetings of the Industrial Medical Association and the American Association of Industrial Nurses. A multifarious program, featuring many of the nation's experts in the field of occupational health, will be announced at a later date. Further information may be obtained from the American Industrial Health Conference, 55 East Washington St., Chicago 2, Illinois.

AMERICAN SOCIETY OF CLINICAL PATHOLOGISTS

Dr. Harold D. Palmer of Denver, Colorado, was installed as president of the American Society of Clinical Pathologists, succeeding at the society's annual meeting held in Chicago last month. He succeeded Dr. Richard E. Palmer of Alexandria, Virginia.

Dr. Robert W. Coon of Burlington, Vermont, was named president-elect to take office at the annual meeting next September, to be held again in Chicago.

NATIONAL LEAGUE FOR NURSING

Experts in hospital and nursing service administration, medical services, psychiatry, and environmental research will tackle the problems of providing skilled nursing care for hospital patients at a series of regional conferences to be sponsored by the National League for Nursing this fall.

The conferences, first of their kind to be undertaken by the League, are designed for nursing service directors and others concerned with improving organized nursing service in hospitals. They will emphasize recent social and technological changes and their implications for nursing service.

AMERICAN HEARING SOCIETY

The forty-third annual conference of the American Hearing Society is scheduled for November 15-17 at the Statler-Hilton Hotel in New York.

For additional information and a conference registration blank, write to the American Hearing Society, 919 18th Street, N.W., Washington 6, D. C.

NORTH CAROLINA

Medical Journal



November, 1962
Vol. 23 No. 11

IN THIS ISSUE

Symposium on Trauma

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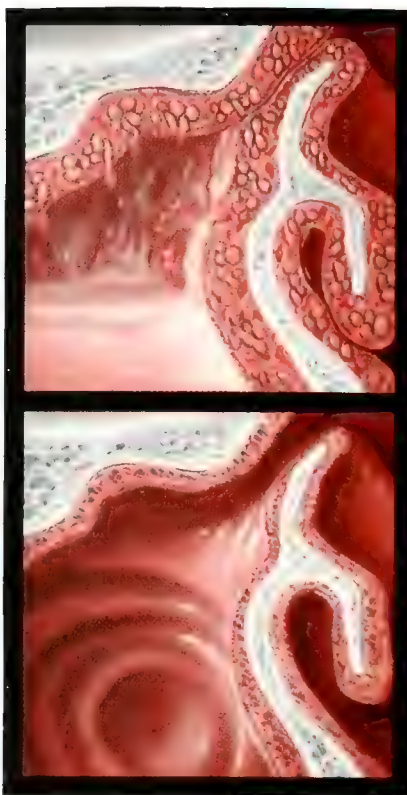
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1. Grant, L. E.: Coryza and nasal sinus infections, *Clin. Med. & Surg.* 42:121, March, 1935. 2. Putney, F. J.: Sinus infection, in Conn, H. F. (Ed.): *Current Therapy* 1952, Philadelphia, W. B. Saunders Company, 1952, p. 110. 3. Simonton, K. M.: Current treatment of sinusitis, *Journal-Lancet* 79:535, Dec., 1959.

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Symposium on Trauma

Shock Secondary to Trauma

JESSE H. MEREDITH, M.D.*

WINSTON-SALEM

Clinical "shock" is such an important aspect of medicine that it deserves occasional re-evaluation in the light of physiologic, biochemical, and anatomic developments.

In this communication, I do not propose to argue the definition of shock, nor to review the literature, but to discuss some of the pertinent factors from the standpoint of its understanding and treatment.

Even though I promise not to enter the argument of definition, I shall propose a working definition for the purpose of this paper. Shock is the clinical situation which results from inadequate perfusion of tissue with oxygenated blood. I realize that there are those who can argue small points with respect to this definition. We shall leave our minds open for modification of the definition as new information arises.

Perfusion of tissue with blood consists of the distribution of blood to the various tissues of the body—that is, each circulatory bed is offered a supply of blood under a common pressure. The blood is supplied through the cardiac output, and the pressure is maintained by forcing the cardiac output into the arterial circulation, which is overfilled. Overfilling, therefore, maintains pressure in the arterial system.

An integral part of the maintenance of pressure is the state of contraction of the arteriolar and precapillary sphincters, or the peripheral vascular resistance. Therefore,

the *cardiac output*, which is the real source of the blood flow, the *volume of blood*, which is the reservoir for flow, and the *peripheral vascular resistance*—contractile state of sphincters of the arteriolar bed—are the physioanatomic phenomena which offer a supply of blood to each and every capillary in the body and prevent shock in the normal situation.

In trauma, any combination of the three essential phenomena can be so disturbed as to cause clinical shock. In order of frequency the possibilities are disturbance of whole blood volume (hemorrhage, burns, etc.), of cardiac output (chest injuries), and of peripheral vascular resistance (due in this case to inadequate perfusion from the above causes). In this paper I will discuss only the shock associated with trauma—particularly hemorrhage.

Bleeding from an artery results in both loss of reduction of pressure, because of a leak in the pressure system (reduction of resistance). Venous bleeding, on the other hand, causes a reduction in whole blood volume and cardiac output. Therefore, we see that stopping venous bleeding should be delayed until the blood volume is corrected by transfusion. On the other hand, stopping significant arterial bleeding is more urgent than restoring blood volume, and should precede and/or accompany transfusion even in the presence of shock.

Maintenance of Blood Volume

Recent experience and studies in connection with intracardiac surgery have given us some valuable information about

*Presented before the Section on Orthopaedics and Traumatology, Medical Society of the State of North Carolina, Raleigh, May 2, 1962.

*From the Department of Surgery, Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, North Carolina.

the maintenance of blood volume. During these operations the entire venous return is "bled" into an artificial lung and returned to the circulation by a pump. With this complete control of the circulation (at least of the cardiac output and blood volume), we are in control of tissue perfusion and are preventing "shock."

I should like to review three points which have been learned primarily from the experience with the pump-oxygenator and which are pertinent to the treatment of shock due to trauma. They are (1) estimation of transfusion needs, (2) venous pressure control of transfusion, and (3) the acidosis which develops from inadequate or delayed transfusion.

First, estimation of blood loss is valuable and revealing. The blood volume accounts for 7 per cent of the average person's weight. The proportion is higher (ranging up to 8 per cent) in lean people and lower (down to 6 per cent) in fat people. Now, the loss of as much as 5 per cent of this volume causes no hemodynamic changes. A loss of 20 per cent will lower the blood pressure. To produce acute shock when the arterial system is intact requires the loss of at least 50 per cent of the blood volume. Let's use the example of a man weighing 176 pounds (80 kg.).

Blood volume

5600 cc. (7 per cent of body weight, or 80 kg.)

Blood loss

740 cc. (15 per cent) produces no signs

1320 cc. (20 per cent) results only in loss of blood pressure

2800 cc. (50%) required to produce shock

The quantity of blood loss required to produce shock ($5\frac{1}{2}$ units of blood in this case) is much larger than most physicians realize when they see a person in shock. Therefore, we should calculate the loss and be prepared to give larger quantities of blood than we sometimes give.

Second, in restoring the normal blood volume of a patient after heart surgery, we learned to use venous pressure control, a useful procedure in treating "shock." One needs an arm vein and a large bore cannula (17 gauge or larger), passed to the deltoid or clavicular level to get proximal to valves

and attached to a saline-filled manometer (as used in measuring spinal fluid pressure), and a three-way stopcock for flushing the catheter free of blood.

Zero pressure can be considered as that determined with the patient in shock. Arterial pressure should be measured in the other arm. One can now administer blood rapidly with a measure of the first sign of cardiac overloading. Rapid transfusion can be carried out until the arterial pressure is corrected or until the venous pressure rises 5 to 10 cm. of saline—either of which should be a signal for slowing the transfusion rate to a point that will maintain one of these pressures at a desired level (venous, 5 cm. saline; or arterial, over 110 systolic).

Third, tissue metabolism in the absence of adequate oxygenation results in the production of lactic acid. The buffer system (bicarbonate and protein) will correct some of this acidity, and adequate circulation of the liver will metabolize large quantities; however, prolonged lowered perfusion will result in acidosis from lactic acid. Three detrimental physiologic phenomena are involved here: (a) Acidosis reduces the contractile force and cardiac output; (b) acidosis prevents the peripheral vessels from contracting in response to epinephrine; and (c) carbon dioxide retention from chest injury or inadequate airway can also contribute.

We should think of this phenomenon instead of the old "irreversible shock," and detect it with pH measurements of arterial (femoral) blood if available (7.2 or lower is very significant), and treat it with tracheotomy, adequate exchange, and administration of sodium bicarbonate (3.75 Gm. to 44.6 mg.) or other amine buffers—TRIS or THAM, when this becomes available. Prevention by rapid administration of blood (with pump) to regain tissue perfusion is the best treatment. Delayed correction of blood loss results in extended shock time. Measurement of the elevation of venous pressure in the absence of myocardial disease and with low arterial pressure is the clue.

A few words about the administration of banked citrate blood (the kind we all use).

The citrate of this blood is acid (pH 6.5); if it has been drawn long (days), red cells which hemolyze cause elevation of the serum potassium. Both of these cause reduction of the cardiac output, if marked. This condition can be detected by measurements of venous pressure. Rapid digitalization of the heart will sometimes be helpful. Rapid administration of citrated blood should be accompanied by administration of calcium (1 Gm. of calcium gluconate per liter of blood) to replace the calcium deficit in the blood and thereby prevent reduction of cardiac output.

Miscellaneous Notes

Following are a few miscellaneous notes to be remembered in treating shock:

1. Arterial transfusion is indicated in the rare instance of the patient whose blood volume and arterial pressure are still known to be low and whose venous pressure is high. This perfuses the coronary artery bed and improves cardiac output.

2. When shock has lasted more than an hour, the patient may require a larger quantity of blood than he has lost, in order to correct his circulatory function. Some patients may require twice as much, or even up to the calculated total blood volume. This phenomenon is called "taking up," and will be seen when venous and arterial pressures

are down despite apparent replacement of blood.

3. Transfusion reaction is more difficult to detect in anesthetized than unanesthetized individuals; therefore, when there is a choice, give blood while the patient is awake.

4. Persons in impending shock or who have been in mild shock (20 to 30 per cent loss of blood volume) and compensated will sometimes lose compensation on anesthesia and should be transfused before operation when feasible. Also, this decompensation should be recognized and treated with transfusion when it happens early in the operation. Obviously larger quantities of blood than are lost at operation will be required.

5. Persons who have been treated with either corticosteroids or some antihypertensive drugs or both, can develop shock from peripheral vascular collapse when subjected to trauma or operation. Treatment consists of the administration of hydrocortisone or vasopressor drugs.

Summary

Some of the physiologic phenomena associated with "shock" in trauma are discussed. A few notes on replacement of blood loss are included.

* * *

Twelve Years of Trauma Experience in a Small Hospital

RAIFORD D. BAXLEY, M.D.

SILER CITY

Accidental deaths have been reduced by only 1 per cent since 1950. In 1960 there were 40,000 deaths in this country due to automobile accidents, while 1,500,000 non-fatal injuries taxed the resources of men and institutions. Farm and home accidents, chemical and drug trauma, and physical and thermal agents contribute in giving this branch of medicine and surgery greater influence and importance than it has had in the past. Only since World War II have the problems been assigned their rightful priority and significance. Certainly any group of problems which so directly relate

to American health and performance justly deserves the time, effort and study devoted to a search for correct solutions, the ultimate of which is total prevention.

This presentation is motivated by a desire to share the experience of a 12-year practice in a small town. Furthermore, I propose to demonstrate that major tasks and problems can be efficiently and successfully met in the community hospital, provided certain prerequisites are insured.

Qualifications of the Surgeon

Picture a single surgeon being called, on a week-end, to attend a wreck in which six

persons are injured. The injuries may vary from minor lacerations to serious or even fatal trauma, resulting in the patient's death prior to or shortly after his admission to the emergency room.

The individual dealing with whole-body trauma must be a well trained, experienced general surgeon—preferably one with broad general knowledge, but more specifically interested in physiology, pathology, anatomy, drugs, apparatus, and anesthesia. Perhaps this type of man is no longer being trained by our medical schools. We have been negatively impressed by recent medical graduates who have not escaped from the much desired but highly academic, ivory-tower atmosphere of the medical school, and who are frightened by what is seen in rural North Carolina. These men think only in terms of evacuation to a medical center.

This is not to imply disrespect for our competent specialists and teachers, but is meant as an incentive for continuous study, observation and ingenuity, and ultimately the cultivation of a special type of judgment peculiar to traumatic cases. In developing this judgment, it is of utmost importance to remember always that the consultant is an integral part of the therapeutic team.

Finally, the individual assuming the responsibility for total care of a patient must be rugged, physically and emotionally. He cannot afford to "panic" at any time, but must always maintain calm command and direction of his team, even while administering the last pint of available blood. (We have a small blood bank and must depend on the Regional Bank in Charlotte for unusual demands.)

The doctor's interest and acuity must be unflinching even when discouragement and failure seem to be the only predictable endpoints. In these cases life and limb literally hang in the balance. One must continue to try—to be willing to expend time and effort, and never to admit defeat. With this attitude and approach, one is often surprised at what *can* be done, and at the achievement of results which theoretically appeared impossible.

Evaluation of Cases

The evaluation of cases must be varied, positive, total, and conducted without hesitation or reservation. We must adhere to the maxims we all have learned and had to relearn after many past mistakes.

In our hospital we have practiced "triage" to a small extent. Minor or inconsequential cases are sorted while one treats shock, secures blood, insures adequate airways, properly positions patients with chest injuries, controls hemorrhage and sucking thoracic wounds, and personally or through a messenger makes frequent progress reports to families.

The timing of treatment procedures is of the utmost importance, and frequently one accident may keep one busy for a week, at the expense of elective or office work. One must learn to be thorough, even when time is precious. One must be able to walk into the emergency room, evaluate a variety of situations in the twinkling of an eye, and only then think in terms of x-ray and accessory clinical studies. Roentgenograms of the urinary tract might be quite enlightening, and certainly views of the chest, extremities, face, and spine are desirable, but they are secondary to the cardinal points stressed here. Skull films can be foregone initially. Hematocrit determinations are made and examination of urine by catheter carried out, noting the volume and color, and ease of passing the catheter, which is retained for fluid balance studies.

At this stage the surgeon will have sent for his team—his trusted anesthetist, his operating room staff, his best laboratory personnel and most dependable orderlies. Also, his intensive-care nurses will have been notified. Administration of oxygen, intravenous fluids and Dextran, nasolaryngeal aspiration, and proper positioning of patients continue necessary, along with the use of antibiotics, narcotics, and tetanus toxoid or antitoxin as indicated.

The evaluation of cases progresses without interruption until the surgeon is demanded in the operating room. If anuria develops, it must be handled promptly. It is suggested that an internist be called to as-

sume this important task of evaluating fluid volume and blood electrolytes. (A flame photometer is of utmost importance to such a program.). We have conducted a rapid but complete physical examination, using a method taught me by Dr. Everett Bugg of Durham which permits quick and thorough evaluation of any patient without duplication or oversight.

Too many participants in the examination often result in confusion, overemphasis of a particular defect or entity, or the oversight of one of the more important impairments. This point is most important. We have repeatedly found that *one* doctor must assume complete responsibility in these cases, using consultants judiciously when indicated. One seeks not agreement for the sake of support, but honest, unbiased judgment.

Intensive-Care Team

The intensive-care team must have been organized, instructed, trained, and thoroughly familiarized with the location and use of special instruments and machines prior to an actual emergency. An adequate number of nurses must have been added to the team as reserves, in the event of illness or absence. Important accessory members of this team include a dedicated x-ray technician, a reliable laboratory worker, a superintendent of nurses who is sympathetic with the objective, a cooperative administrator, a friendly druggist and several drug detail men, interested floor nurses, willing aides, and orderlies who give of themselves beyond the call of duty. Even the maintenance men and shop mechanic assume a vital role. An unsympathetic operating room staff can defeat all that may have been gained during early treatment. Therefore we must maintain good relations with the operating room supervisor and solicit her respect, understanding, and support. The raving, demanding despot can destroy gains in human relations requiring months to reestablish. One must question *his* motivation.

Equipment and Supplies

Adequate equipment, rarely used drugs, and special supplies must be on hand.

Means of obtaining these items are probably just as important as on-the-spot possession. Dependable consultation facilities are a *must*.

1. Blood from the Red Cross Regional Bank in Charlotte will be made available to the dedicated man of integrity who has not abused and never will abuse this noble service.

2. The coroner, police, sheriff's department, and patrol department play a very vital role in the small town. The citizens themselves maintain a spirit of cooperation and high esprit de corps. The family minister plays an increasingly important part which, if utilized, will help sustain confidence and trust on the part of the family—extremely desirable attitudes. It has been my experience that people in disaster situations involving their loved ones, placed in a strange hospital environment, will follow their doctor all the way if he is faithful to his duty of keeping them informed; never losing patience, but behaving with consideration, humility, and dignity regardless of stress or the demands of time. Remember always to represent and report the true situation with sincerity and honesty. It has often been said that one of the attributes of a good physician is the ability to "live with" the family involved, and to become somewhat emotionally identified with their problems.

3. In our community, the Gray Ladies have made a major contribution, filling the void between professionalism and humanism.

Concepts of Management

Certain scientifically proven concepts which have become universally axiomatic are regarded as sacred tenets of our philosophy of trauma.

1. Blood loss should be adequately replaced before any major surgical procedure if at all possible.

2. There is an optimal time for surgery if one possesses the faculty of selection.

3. One should never hesitate to perform a tracheotomy—and the procedure is usually indicated if it comes to mind. It can be used to remove secretions and plugs as well

as for oxygenation, thus serving two essential remedial functions.

4. In the absence of dehydration, if urine formation is scanty after the intravenous administration of 2000 cc. of glucose in water, the chances are strong that the classic picture of lower nephron nephrosis will develop, with all its grave implications.

5. One works hard to prevent or to correct shock, but does one remember that pain, loss of circulating blood volume, and unwise movements of the body or extremities will severely hamper all emergency therapeutic measures?

6. Until careful evaluation rules out the presence of shock and other conditions that make it unwise to move the patient, nothing is to be more deplored than extensive x-ray examinations designed to satisfy curiosity.

7. Acute abdominal conditions cannot be ignored, and if signs and symptoms lead to this conclusion, one must act with aggression and dispatch.

8. Either pleural cavity may continue to conceal quantities of hemoglobin, leading one to wonder where the blood is going. This problem can be solved only by correct interpretation of physical and x-ray findings, and carefully planned, positive, unyielding surgery.

9. No matter how much one would prefer to ignore them, localizing neurologic signs must be either explained satisfactorily or obeyed to the letter. Obedience leads to surgical exploration.

10. Abdominal exploration should be bold; it should be carried out according to a previous plan, and it should be terminated promptly.

11. Fractures under any circumstances are still fractures. Either treatment is mandatory, in the compound case, or the proper use of a plaster cast will yield valuable time in which to choose the optimal time for major surgery.

12. Urologic injuries demand immediate intervention, utilizing proved methods of drainage with ultimate restoration of function. Anatomically one must know intimately the fascial planes involved and proper drainage methods. Ideally the general surgeon should be adept in the use of urologic

instruments.

13. The general surgeon should demonstrate to the plastic surgeon that he has a knowledge of tissue and its healing properties, and that he knows there are such things as scars.

14. Wound cultures and sensitivity tests may be the surgeon's best friends.

The foregoing concepts are also applicable to cases of poisoning (barbiturate, isoprophyl alcohol, and so forth), obstetric hemorrhage, cerebral accidents, acute pneumonia, and major surgery.

The fact that a hospital is small does not preclude a knowledge of circulatory hemodynamics and efficient attempts at resuscitation in the presence of cardiac arrest. Our medical team would not hesitate to employ peritoneal dialysis, when indicated (we have had a most happy experience with peritoneal lavage). The desperately ill patient and poor anesthetic risk are given the benefit of cardiac monitoring.

We stand firmly on these sound principles, being neither arrogant nor conceited, but positive, courageous and confident; realizing that mistakes may occur, but truly believing that this total strategy will usually prevail. Thus we serve humbly, but with proud dignity ourselves, our patients, and the people of our community.

Summary and Conclusion

1. The treatment of trauma is today^{*} an important division of medical care, involving peculiar problems which demand specialized knowledge and skills.

2. Some prerequisites for successful management in a small hospital are presented.

3. A philosophy of trauma, the product of a 12-year experience in a small hospital, is stated in detail.

4. In our opinion, total treatment of the seriously injured patient can be administered successfully in the small hospital, thereby developing public and professional confidence, and an *esprit de corps* among hospital employees, which leads to proud, appreciative, and healthy community attitudes.

Injuries to the Shoulder Obscured by Negative Roentgenograms

THOMAS B. DAMERON, JR., M.D.

RALEIGH

Injuries to the shoulder can be divided basically into those involving the soft tissues and those involving the bone and joint structures. One would not expect the soft-tissue injuries to be demonstrated by x-ray. Nevertheless the diagnosis of shoulder injuries is sometimes missed because the roentgenograms were negative. With the false assurance of negative roentgenograms, patients needing definitive treatment have been sent away without receiving any. Fortunately, the more obscure injuries to the soft tissues of the shoulder do not usually require immediate treatment, and delay in recognition and treatment results in nothing worse than embarrassment to the physician.

Soft-Tissue Injuries

The most common soft-tissue injuries that should be considered in patients with trauma to the shoulder region are (1) brachial plexus injuries, (2) musculotendinous cuff tears, and (3) ruptures of the biceps tendon.

Brachial plexus injuries

Injuries to the brachial plexus are frequently overlooked. These patients often have other critical and more painful injuries which divert the physician's attention. The injuries are usually the result of direct pressure forcing the head toward the other shoulder, or downward pressure on the affected shoulder. Neither avulsion of the nerve root at the spinal cord nor separation of the nerve in the brachial plexus itself is benefited by surgical treatment, even when instituted immediately. Recognition of this injury does not require immediate steps other than a sling for protection against further injury. Cord damage from a bony injury must be ruled out, however.

Musculotendinous cuff injuries

Musculotendinous cuff injuries usually occur in older people. These patients often

present themselves several days after having fallen, complaining primarily of inability to raise the shoulder. Generally, the pain is less severe in older persons than in younger ones. Again, initial management is directed primarily toward ruling out bone injury.

It may be, and frequently is, impossible initially to determine whether or not the injury to the musculotendinous cuff is a "sprain" or a complete tear unless an arthrogram is obtained. We do not recommend arthrograms routinely. Rather, we use a sling and early circumduction exercises to prevent adhesions. There should be appreciable improvement in the active range of abduction by the end of six weeks if the tear is not massive. Only cuff tears require surgical repair.

Rupture of the biceps tendon

Rupture of the biceps tendon is an attritional condition that sometimes occurs spontaneously and sometimes follows trauma. It is often preceded by the symptoms of chronic biceps tendonitis. As this injury does occur in older but relatively active people, we usually recommend that it be repaired by sewing the proximal end of the distal portion of the ruptured tendon to the coracoid process. Direct repair of the biceps tendon is contraindicated.

Injuries to the Bones and Joints

Acromioclavicular separation

Occult injuries to the bone and joint structures of the shoulder usually require earlier and more vigorous treatment than do the occult soft-tissue injuries. The most frequently missed injury of this type is acromioclavicular separation. Subluxation may occur with only disruption of the capsule of the acromioclavicular joint. A complete dislocation, however, cannot occur unless the coronoid and trapezoid ligaments between the clavicle and the coracoid process are ruptured also.

When the patient is recumbent, the subluxation will probably not be demonstrated by roentgenographic examination, and frequently the complete dislocation is obscured. *It is necessary to get views with the patient in a standing position in order to demonstrate disruption of the acromioclavicular joint.* This dislocation may be obscured even in the standing position unless a special technique is used. The acute pain and protective muscle spasm may hide the condition unless the patient holds a weight of 20 to 25 pounds in his hand while standing for the roentgenogram.

There are several methods of treating this injury. The principles of treatment are to exert upward pressure through the humerus to the acromion, along with downward pressure on the distal clavicle. We prefer the crutch-cast method of Dr. Hugh Thompson. Although it is frequently more difficult to carry out initially than one of the surgical procedures, and is certainly less dramatic, we believe that it is much safer. Maintenance of anatomic position is not necessary for attaining complete functional recovery.

Posterior dislocation

Posterior dislocation of the shoulder initially is missed more often than it is recognized. This injury is often associated with epileptic convulsions or electroshock, but may result from an ordinary fall. An untreated posterior dislocation of the shoulder is disabling.

Clinically, patients with this injury have pain and limitation of motion of the shoulder. The humeral head is prominent posteriorly. This prominence is easily obscured by the swelling present, unless the examiner carefully palpates the scapular spine on both the affected and nonaffected sides and feels the difference in distance between the spine and the humeral head on the two sides. As a result of the injury, the humerus is fixed in internal rotation, making it impossible to demonstrate the greater tuberosity of the humerus on anteroposterior films.

Anteroposterior films, however, cannot be depended upon as diagnostic in this condition. The true lateral (axillary) film is

essential to early diagnosis. This view should be made in all shoulder injuries in which the physician has any question as to the exact diagnosis. This view can be obtained by pointing the x-ray tube toward the ceiling from under the axilla, with the cassette and x-ray film resting on top of the patient's shoulder while he sits or stands. It does not require much motion on his part and hence causes little pain. The same view can easily be made with the patient recumbent by placing a pillow under the shoulder and employing the same technique.

Treatment: Early reduction is easily obtained when adequate anesthesia and relaxation are employed. Traction is instituted on the flexed elbow or by the Hippocratic method; the arm is internally rotated further; and manual pressure is instituted on this humeral head, pushing it forward. Sometimes the relocation is not stable unless the arm is fixed in extreme internal rotation with the forearm bandaged behind the back. The position of reduction should be maintained for at least three weeks and the shoulder protected for a total of six weeks.

Anterior subluxation

Anterior dislocation is apparent on routine anteroposterior roentgenograms. Anterior subluxation is less apparent, however, and may be overlooked. Again, the axillary or lateral view will demonstrate the sometimes obscure relationship of the humerus to the scapula. Treatment of this condition is the same as that of anterior dislocation.

Proximal humeral epiphyseal injuries

Proximal humeral epiphyseal injuries may be displaced in the anteroposterior plane and fail to show up on the anteroposterior roentgenogram. Again, the lateral or axillary view will demonstrate the displacement. This view should be taken in all suspected fractures or epiphyseal injuries of the proximal end of the humerus.

Sternoclavicular dislocations

Sternoclavicular dislocations are difficult to recognize and frequently missed. It is

necessary to obtain oblique views of the sternum on both the affected and non-affected sides in order to demonstrate this lesion. Closed reduction is best afforded by exerting manual pressure on the median end of the clavicle and holding it in this position while a "Statue of Liberty" cast is applied. Failing to diagnose a subluxation of either end of the clavicle and leaving it unreduced may be compatible with completely normal function and no pain. It does leave a cosmetic abnormality, however.

Fibrocartilage dislocation of the sternoclavicular and acromioclavicular joints

There is a fibrocartilaginous disc at both proximal and distal ends of the clavicle. These can be torn or avulsed. It is rare indeed that the displacement from the joint is sufficient to be demonstrated clinically,

but when it does the disc is simply removed. Persistence of pain in either the sternoclavicular or acromioclavicular joint following injury without dislocation should focus attention on this structure, which may require surgical treatment to improve the function of the shoulder.

Summary

When there is any doubt as to the exact nature of an injury to the top of the shoulder, a standing anteroposterior roentgenogram should be made with the patient holding a weight of 25 to 30 pounds in the affected hand. In all injuries involving the proximal portion of the humerus and humeral head, and in those instances in which the exact nature of the injury to the shoulder joint is not clear, an axillary or lateral roentgenographic view must be obtained.

* * *

Thoracic Trauma and Its Treatment

JESSE P. CHAPMAN, JR., M.D.

ASHEVILLE

The function of the chest in respiration has been oversimplified by comparing it to the action of a piston and cylinder (or two pistons if we consider the two hemithoraces divided by the mediastinal compartment) in which the diaphragm serves as the piston or movable floor of the cylinder. If we could ignore the fact that the *sides* of this piston also move to function, and that within the cylinder are contained those organs on which the entire organism critically depends for respiration and circulation, the nature and treatment of thoracic injuries would require little discussion. Because of the functions of the thoracic viscera, however, we must consider the effects of any trauma upon the moving walls of the thoracic cage and its contents: the lungs, heart, great vessels, esophagus, and tracheobronchial tree.

Chest injuries, as do injuries elsewhere, vary in degree depending on the type, extent, and severity of the traumatic force to which they are subjected. We can classify such trauma into penetrating or nonpenetrating injuries.

By far the greater number of chest injuries belong to the latter group.

Injuries to Soft Tissue

The most frequently encountered injury is the one which results from a simple direct blow to the chest wall with force insufficient to fracture the underlying ribs. This injury to the soft tissues we refer to as *contusion*. Immediately after such an insult, the only visible evidence at the site of injury may be an area of diffuse or localized redness. When seen an hour or more later, swelling of the injured area will be discernible; and frequently an associated muscular spasm or area of hematoma or ecchymosis is present. It may be impossible to detect the presence of a rib fracture by physical examination; therefore, unless the evidence suggests a very minor injury, x-ray examination of the chest is indicated.

Treatment is that of a contused area anywhere—namely, heat and rest. If the injured area is very tender and painful, local infiltration of procaine or Xylocaine will often

give immediate relief. Oral or buccal enzymes may be employed to promote the more rapid resolution of swelling and ecchymosis, although the results are somewhat unpredictable. If movement makes the pain worse, then the area may be immobilized for a few days by elastic adhesive strapping, elastic bandage, or the use of web canvas belt. There is a definite tendency for patients to splint the injured side, resulting in further discomfort and disability due to the muscular spasm. In such instances, a muscle relaxant in combination with salicylates or steroids may be an effective adjunct to treatment.

Fractures

While it is not unusual for a broken rib to result from *internal* trauma (such as coughing, sneezing, straining, or heavy lifting), fractures of the ribs and sternum are more commonly due to external trauma, particularly direct blows to the chest. Fractures of the bones of the thorax may be simple or compound, and they may be complicated by associated injuries. Simple fractures involve injury only to the bone itself; compound fractures signify that the bony fragments have penetrated the skin or that, from some other cause, there is an opening through the skin to the fracture site. The point at which a rib fracture occurs depends upon: (1) the direction of the force causing the injury; (2) the convex architecture of the bone itself. Ribs are most often broken near the costal angle; and those which are most frequently broken are in the group from the fifth to the ninth. It therefore follows that these ribs should receive our closest scrutiny in examining the injured patient.

Indirect trauma will bow the rib upward and outward, so that it tends to fracture near the middle of the shaft. Though such an injury may involve more than one rib, it rarely produces serious complications. *Direct trauma*, on the other hand, produces a fracture at the point of impact, pushing the sharp rib fragments inward and increasing the risk of penetrating the pleura and lung, with the complications inherent in such an injury. Fractures due to *muscular violence*

usually occur subperiosteally near the front of the rib at the site of heavy muscular attachment, and most commonly involve the seventh through the eleventh ribs. If x-ray shows the ends of the fracture to overlap, multiple fractures should be sought since single fractures tend to stay end-to-end.

Because of the built-in support of muscle and bone, non-union of rib fractures is virtually unknown; and even markedly displaced fractures will unite if the underlying lung is functioning normally. In two weeks, callus has usually formed and the fracture has stabilized. While x-ray evidence of bony union may not be complete for several months, functional recovery is usually complete within five to six weeks.

Treatment

Where the patient requires immobilization because of other injuries, bed rest is often sufficient treatment for an uncomplicated rib fracture. Strapping the chest with an elastic adhesive (Elastoplast) may afford considerable relief from pain. Remember that the adhesive should extend for at least 2 inches over the midline fore and aft, on to the sound side. Strapping is ineffectual if the fracture lies beneath the scapula, and should not be used where the skin is widely abraded.

In older patients, where constriction of the thoracic cage might seriously impair lung function, intercostal nerve-blocking is helpful. Take a few moments longer to anesthetize the nerves accompanying uninjured ribs above and below the fractures. It will be time well spent!

Occasionally, the *sternum* is fractured instead of or along with the ribs. Sternal fractures are usually the result of a direct blow but may be due, on rare occasions, to indirect trauma. Recently a woman of 60 slipped and sat down suddenly and firmly on the pavement. On impact, she felt a sudden snapping sensation in the center of her chest anteriorly. The only demonstrable injury was a transverse fracture of the sternum. Where such a fracture involves the outer or inner table alone, no treatment is necessary. If the fragments override, they

may be reduced by hyperextending the patient with his arms raised overhead. Occasionally, a badly displaced sternum will require traction or open reduction and fixation.

Complications

Since they account for all of the dangers and most of the symptoms following rib fractures, the *complications* of rib fracture are important. We can classify these complications according to location as follows:

I CHEST WALL

- A. Surgical emphysema
- B. Flail chest
- C. Compound fractures

II PLEURAL COMPLICATIONS

- A. Hemothorax
- B. Pneumothorax
- C. Pleural effusion

III PULMONARY COMPLICATIONS

- A. Lacerated lung
- B. Contused lung
- C. Atelectasis
- D. Bronchial or tracheal rupture

IV MEDIASTINAL COMPLICATIONS

- A. Cardiac
 - 1. Traumatic asphyxia
 - 2. Hemopericardium
 - 3. Myocardial infarction (traumatic)
- B. Esophageal rupture
- C. Aortic rupture
- D. Diaphragmatic rupture or hernia

V ABDOMINAL COMPLICATIONS

- A. Rupture
 - 1. Of the liver
 - 2. Of the spleen
 - 3. Of the kidney
 - 4. Of the duodenum

Hemothorax

The most common and at the same time the most serious pleural complication of chest injuries is hemothorax. The bleeding usually stops before the blood loss is great; but it occasionally continues until the pleural cavity is filled with blood, clots and serum, and the underlying lung is compressed and rendered functionless. The diagnosis is readily confirmed by aspiration of the chest. When blood is found in the thorax early in the course of treatment and within a short time rises two or more interspaces, closed thoracotomy with the insertion of a drainage tube should be performed. Simple aspiration, or repeated aspiration, may be sufficient in those cases

where the hemorrhage is small and basal and is not associated with respiratory distress.

In reading chest roentgenograms it is well to remember that, after the blood has clotted, only about one-half of the x-ray shadow—that is, the serum—can be aspirated. The so-called enzymatic debriding agents may occasionally help in liquefying a small clotted mass, but they may also produce a marked febrile reaction. Where more than one third of the chest is filled with blood, a thoracotomy tube and water-seal allows for rapid evacuation, full re-expansion of the lung, and a short convalescence.

Hemothorax can be managed simply by following three guiding principles:

1. Remove the blood
2. Avoid infection
3. Restore lung function.

When closed thoracotomy does not prove effective, an early open thoracotomy with decortication within the first 10 days will permit rapid expansion of the entrapped lung.

Pneumothorax

Pneumothorax may be produced by penetrating or nonpenetrating trauma, and may be classified as (1) open, (2) closed, and (3) tension.

If the wound is not penetrating, the first question to be answered is whether or not tension pneumothorax is present. Increasing or severe dyspnea with displacement of the heart or trachea to one side suggests tension pneumothorax, and the condition can be quickly diagnosed and as quickly relieved by inserting a long needle between the ribs into the thoracic cavity. Both patient and physician will find reassurance and relief from tension with an inter-rib catheter attached to water-seal drainage.

A small, uncomplicated pneumothorax will usually be reabsorbed slowly. A larger one will often respond to single aspiration. If the pneumothorax is increasing, water-seal drainage with or without suction is required. Persistent slight leaking suggests a small alveolar leak, which will usually close within 48 hours. Massive air leaks persisting after 48 hours suggest bronchial or

tracheal tears or a severe laceration of the lung. Bronchoscopy is usually diagnostic of the first two, but all these conditions usually require exploratory thoracotomy for correction.

Open pneumothorax is traditionally described as the "sucking wound of the chest." Emergency treatment consists in closing the opening to exclude further outside air. A pad soaked in a mild antiseptic solution (Zephiran) or a sterile vaseline gauze pack, covered by a bulky pressure dressing and adhesive or Ace bandage, is the simplest dressing. After shock and respiratory embarrassment are controlled, the wound is debrided and the chest wall is closed.

Pleural effusion is generally not a serious problem. Its progress may be followed by serial chest roentgenograms or by percussion and auscultation of the chest. Thoracentesis may be indicated for dyspnea or pain, and helps to differentiate effusion from hemothorax.

Crush injuries are arbitrarily defined as injuries in which more than three consecutive ribs are fractured. In addition to the ribs, there may be damage to the lung, heart, aorta, pleura, esophagus, or thoracic duct. The diaphragm may be ruptured, with herniation of abdominal viscera into the chest, usually on the left. This condition is sometimes misinterpreted on chest films as merely an elevated left hemidiaphragm. One should also be aware of the possibility of associated injuries to the liver, spleen, kidney, or duodenum. Rupture of the third portion of the duodenum retroperitoneally may give as its first sign mediastinal or cervical emphysema.

The rapidity with which asphyxia kills make it imperative that priority be given to the thoracic lesions by providing an adequate airway and adequate intake of oxygen. Physical examination may disclose subcutaneous emphysema, a flail chest, obvious pneumothorax, severe dyspnea, and sometimes a palpably deviated trachea. Sputum heavily stained with blood may signify a severe contusion or deep laceration of the lung. The urine should be examined repeatedly for blood.

Acute gastric dilatation can occur with chest injuries, producing abdominal pain and distention, tenderness, rigidity, and ileus. A swallow or two of iodized oil (*not barium*) may disclose an unsuspected esophageal rupture or diaphragmatic hernia. When the airway is blocked, endobronchial suction, bronchoscopy, or tracheotomy may be required. "The time to do a tracheotomy is when you think about doing it." Elective tracheotomy with a transverse incision has few contraindications, and it may be life-saving. The advantages of doing such a procedure electively are obvious. Respiration can be further assisted by a respirator or assistant. Intrathoracic tension is relieved by water-seal drainage. Pain should be relieved, in so far as possible, by local anesthetics. Sedatives should *never* be the sole treatment, since they tend to depress the cough reflex and develop a false sense of complacency concerning the patient's condition. *Never should relief of pain take precedence over adequate ventilation.* Sternal or costal traction using towel clips, forceps, screws, or steel wires, and 5 pounds of traction over a Balkan frame or other overhead device, will help stabilize the flail chest.

Sooner or later the surgeon may have to decide whether or not the chest should be explored. Urgent exploration is indicated in the following situations:

1. Uncontrollable intrathoracic hemorrhage
2. Uncontrollable pneumothorax
3. Rupture of diaphragm, esophagus, or tracheobronchial tree
4. Recurrent cardiac tamponade.

Elective exploration may be indicated for trapped lung (due to hemothorax), persistent chylothorax, or empyema. One should be aware that a contused lung may become atelectatic temporarily from the insult alone, as well as from retained secretions.

Summary

A brief outline of the chest injuries most commonly encountered has been presented, together with suggestions for their diagnosis and treatment.

Steering Wheel Injuries of the Thorax

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DURHAM

In 1960 automobile accidents resulted in about 40,000 deaths and 1,500,000 injuries in the United States. A study of the automobile interior reveals that the major structures causing body injury in the order of importance are as follows: the steering wheel assembly, ejection through a door, the instrument panel, the windshield, the backrest of the front seat, and the door structures¹. The terrific acceleration force imparted to the automobile driver by a head-on or rear-end collision results in a characteristic thoracic injury. A small area of the thorax comes in contact with a round fixed object, the steering wheel, and a segment of a chest wall is crushed inward, resulting in a paradoxing chest wall segment, or flail chest.

The motion of the chest wall becomes paradoxical when the anterior ribs or cartilages on both sides of the sternum are disengaged, or when a segment of three or more ribs on one side becomes free as the result of anterior and posterior fractures. The motion of the flail segment is controlled by the changing intrapleural pressures. The flexible area is pulled inward on inspiration and pushed outward on expiration, producing a paradoxical motion. Ventilation is markedly decreased by a useless exchange of stagnant air within the lungs, incomplete expansion with decreased capacity of the affected lung, and mediastinal shifting with compression of the opposite lung. If the paradoxing segment is a large one, there is a wide mediastinal swing, and circulatory dynamics may be seriously altered. The venous pressure rises, the right side of the heart fills inadequately, and the arterial pressure eventually falls.

Efficiency in coughing is diminished, particularly on the affected side, because the free segment of the chest wall swings outward and reduces the normal expectorating force. The paradoxical motion is painful, and the patient voluntarily reduces the respiratory excursion of the affected side.

As a result of these two factors, atelectasis due to retained secretions is very likely to develop, and is frequently present by the time the patient reaches the emergency room.

Since a considerable force is required to produce a thoracic segment fracture, about 80 percent of the patients may be expected to have either or both a hemothorax and simple or tension pneumothorax. In this type of trauma a main or major bronchus may be fractured and cardiac tamponade may be present.

Diagnosis

The diagnosis of flail chest can be made with the eye and the hands, as the paradoxing segment can be felt and seen. The patient will usually be in severe cardiorespiratory distress, with tachypnea, hypoxemia, tachycardia, and hypotension. Pain is severe and enhances the patient's apprehension.

The degree of cardiorespiratory compensation serves as a guide to the degree of associated intrathoracic pathology. If tension pneumothorax is present, the respiratory exchange will be extremely poor and the patient may be cyanotic. Assuming there are no other body injuries, a progressing tachycardia with hypotension usually indicates a significant hemothorax. Cardiac tamponade produces increased venous pressure, a quiet heart, hypotension, and a diminished pulse pressure.

An inquiring needle inserted into the thorax or the pericardium will usually answer the question of pneumothorax, hemothorax, or hemopericardium.

Roentgenograms of the chest are of great value and should be made as soon as practical; however, the majority of patients should be treated first and x-rayed later. The roentgenogram will provide the necessary information as to complicating intrathoracic visceral injury (hemothorax, simple or tension pneumothorax, hemopericardium, rupture of a major pulmonary bron-

chus, pneumomediastinum, or esophageal rupture), and the adequacy of the initial treatment.

Treatment

The initial emergency room management of flail chest may mean life or death to the patient. The traumatologist must answer three questions immediately:

1. Is the airway adequate?
2. Is the patient in shock? If so, why?
3. Are there intrathoracic complications?

The answer to these questions will determine the course and the urgency of treatment. If the patient's airway and blood pressure are adequate it can be assumed that no serious intrathoracic pathology such as a tension pneumothorax or massive hemothorax is present, and tracheostomy is not immediately indicated.

If the airway is inadequate, a tracheostomy should be performed immediately. The tracheostomy makes it possible to maintain a free airway, remove bronchial secretions, and decreases inspiratory and expiratory resistance. If an anesthesiologist or anesthesiologist is available, an endotracheal tube with an inflatable cuff can be inserted through the opening and positive pressure oxygen given as long as the patient's condition warrants it.

The presence of dyspnea and shock, in the absence of other contributing injuries (brain injury, rupture of intraabdominal organs, abdominal aorta, and so forth) probably indicates an associated intrathoracic visceral injury—tension pneumothorax, hemothorax, or hemopericardium. Immediate thoracentesis, pericardiocentesis, or both should be done to establish the diagnosis in this urgent situation. In the presence of pneumothorax or hemothorax, immediate tube thoractomy should be performed, with underwater drainage and with about 8-10 cm. of negative water pressure applied to the tube.

When hemopericardium is found, repeated aspiration should be tried initially, and if blood continues to accumulate rapidly, a thoracotomy must be done to find and control the bleeding point.

Blood is cross-matched immediately, in-

travenous infusion of glucose is started, and plasma or dextran is given if indicated, to maintain the blood pressure until blood is available. With the respiratory function under control, the patient may be placed in the Trendelenberg position to facilitate venous return to the heart (autotransfusion).

After the establishment of an adequate airway and control of shock, attention is directed to the relief of pain and the paradoxical motion of the chest wall. Narcotics are given cautiously so that the respiratory center is not depressed. Intercostal nerve blocks are very effective at this stage, and prolonged relief can be obtained by placing small plastic tubes along the intercostal nerves and leaving them in place for subsequent administration of local anesthesia. The recent use of these small plastic catheters for intravenous therapy in hospitals makes them readily available for use in this situation.

The management of the paradoxical chest wall depends on the size and location of the free segment. If the segment is small, consisting of three or four ribs, the use of gauze pads or rubber sponges placed in the flexible area to form a stent and fixed with adhesive tape is effective in the simple uncomplicated cases. When the flail segment is large and the patient's pulmonary function is borderline, or if there is the chance of permanent deformity, skeletal traction is used. A simple method is to pass a stainless steel wire or the jaws of a towel clip around the centrally located rib and attach it to a 5-pound weight which is suspended by a rope over a pulley². The tissues are sufficiently rigid to permit removal of the traction in about 14 days. Other methods of fixing this type of segment are the insertion of stainless steel pins under the muscles of the thorax³, insertion of screws into several ribs and application of traction, and open reduction with wire fixation of the ribs⁴.

In fractures of the sternum with flailing due to bilateral fractures of costal cartilages or anterior rib segments, sternal traction is usually necessary. The use of multiple Bigelow screws, a metal bar, and a traction spreader assembly⁵ has been found effec-

tive. If there is a complete transverse fracture of the sternum with instability, open-wire fixation of the sternum and a sternal traction apparatus may be necessary. Wires or towel clips placed on the costal cartilages on either side of the sternum are not satisfactory, as they tend to cut through and/or result in an infection which is difficult to manage subsequently.

Mediastinal and subcutaneous emphysema may be a frightening finding in patients with a flail chest. It is usually associated with tension pneumothorax, and usually does not require special treatment when the pneumothorax is adequately drained. Occasionally it becomes necessary to perform a cervical mediastinotomy, opening the pre-tracheal fascia to prevent further accumulation of air.

A major bronchial tear should be suspected when severe dyspnea with extensive subcutaneous emphysema continues in spite of what appears to be adequate catheter drainage of a tension pneumothorax. This can be confirmed by bronchoscopy or bronchography. The bronchial tear is repaired with the use of Carlen's endotracheal catheter, which enables the anesthesiologist to ventilate either lung.

Following a severe nonpenetrating thoracic injury the thoracic aorta may be torn, producing either a complete laceration with immediate exsanguination, or an incomplete tear of the vessel wall with delayed rupture, or the subsequent formation of an aneurysm. More than half of the aortic tears are located immediately below the left subclavian artery⁶, the remainder being either at the origin of the aorta from the heart, on the concavity of the arch, or in the descending aorta. An asymptomatic period of two to three weeks may elapse following severe chest injury before delayed aortic rupture occurs. Immediately prior to an exsanguinating hemorrhage there is frequently a small hemorrhagic episode lasting from 1 to 36 hours. This warning must be recognized instantly and thoracotomy performed immediately.

Rupture of the esophagus following nonpenetrating trauma to the thorax and

epigastrium is extremely rare. It has been noted that perforation almost invariably occurs in the left lateral posterior aspect of the esophagus, several centimeters above the hiatus. Mosher⁷ noted that the circular smooth muscle of the lower esophagus becomes longitudinal close to its junction with the stomach and fans out over the stomach to help form the muscular layers. The longitudinal direction of the fibers allows easy separation, so that the mucosa can herniate and rupture when the gastric contents are forcefully ejected into the lower esophagus. The patient is dyspneic and complains of excruciating epigastric and back pain. If untreated, his general condition rapidly deteriorates, with increasing dyspnea, pain, and shock. Chest films show air in the mediastinum, and a lipiodol swallow will reveal the area of esophageal rupture. Immediate thoracotomy should be performed, the esophagus closed, and catheter drainage of the left thorax instituted with the mediastinal pleura left open.

Summary

1. Flail chest is the characteristic injury resulting from severe steering-wheel trauma of the thorax.
2. Hemopneumothorax is so commonly associated with fractures of segments of the chest wall that it should be considered to be present until proved otherwise.
3. The cardiorespiratory disturbances associated with flail chest are reviewed, and the importance of immediate diagnosis and treatment is stressed.
4. Rupture of a major bronchus, the aorta, and the esophagus are rare, but must be suspected and treated as soon as the diagnosis is made.

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Traumatic Rupture of the Diaphragm

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Traumatic lesions of the diaphragm are due to one of three types of injury: direct, indirect, or operative. Stab and bullet wounds are the most common forms of direct injury. Blunt trauma such as that received in automobile accidents or a fall from a height is the usual manner of indirect injury. A variety of operative procedures may result in insecure closure of an incision in the diaphragm and subsequent herniation.

A wound of the diaphragm may have immediate and serious consequences; it may remain unrecognized with few or no symptoms for years; or a catastrophic complication may develop months or years after the initial injury. Treatment of the diaphragmatic injury *per se* almost uniformly leads to good results; associated injuries and the early and late complications of diaphragmatic trauma, however, have an appreciable mortality rate. The major problem is prompt diagnosis of the injury.

Etiology

The cause of direct trauma to the diaphragm is usually obvious in so far as the agent is concerned, whether this is a knife, a bullet, shrapnel, or some other agent. The manner in which the injury to the diaphragm occurred may be less obvious, particularly when the history does not include important features such as the position of the patient at the time of injury, the direction in which the bullet or knife was traveling, the depth of penetration of the knife, and other details which might direct attention to the diaphragm.

Theoretically, a bullet entering the body

at any point of the trunk might be directed so as to cause injury of the diaphragm. A knife wound in the upper part of the abdomen or lower part of the chest could traverse the diaphragm. Depending on position and the state of respiration, a midthoracic wound might also cause a laceration of the diaphragm. As Wolma and Moore¹ have emphasized, the diaphragm is close to the chest wall from the costal margin to the level of the seventh rib in the mid-axillary line, and is still near the chest wall as it curves toward the dome, which in maximum expiration is about the level of the fourth costal cartilage anteriorly.

Case 1

A 20 year old white man sustained an accidental self-inflicted shotgun wound while intoxicated 20 hours before admission. At his local hospital he was treated for shock, the chest wound was made airtight with dressings, and he was then transferred to this hospital.

On admission the blood pressure was 140 systolic, 80 diastolic. A 2-cm. sucking wound was present at approximately the fourth intercostal space on the right anteriorly. The heart was normal, and the abdomen showed tenderness in the right upper quadrant.

Operation through a combined incision showed the lower part of the lung to be contused, and part of the middle lobe had been shot away. The dome of the diaphragm had an 8 by 10-cm. defect through which contused, macerated liver was seen. Hemostasis was obtained and the defect repaired. The patient's course was complicated by repeated bleeding from the liver and a subdiaphragmatic abscess, but he eventually recovered.

Indirect injury or closed trauma to the chest and abdomen, such as that caused by crushing against a steering wheel or by a heavy weight falling on the trunk, may produce a laceration of the diaphragm by one

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of three mechanisms: (1) penetration by the sharp end of a fractured rib; (2) a sudden and marked increase in intra-abdominal pressure; (3) a sudden and severe distortion of the contour of the rib cage.

The role of increased intra-abdominal pressure has been discussed by Childress and Grimes². The normal pressure gradient between the abdomen and thorax in quiet respiration is between 7 and 20 cm. of water; with maximum inspiratory effort, this may exceed 100 cm. During coughing, straining, or the Valsalva maneuver, pressures in both the abdomen and thorax increase so that the gradient may change very little. The sudden application of a considerable force to the wall of the abdomen produces an equivalent increase in intra-abdominal pressure, but no increase in intrathoracic pressure; the gradient may thus be markedly increased for a brief time. The liver provides a protective barrier on the right side, and the heart and pericardium give some buffering force in the thorax. The protective (or buffering) action of the lungs depends on the pressure within them at the instant of injury, which in turn depends on whether the glottis is open or closed. The increased intra-abdominal pressure, equally applied in all directions, may therefore disrupt the left hemidiaphragm as it is least protected and buffered.

Case 2

A 24 year old Negro man was struck in the abdomen by the steering wheel when the car he was driving was wrecked eight days before admission. At his local hospital he was found to have a fractured pelvis. The next day vomiting began, and eventually he was suspected of having a ruptured diaphragm with the stomach in the left side of the thorax.

On admission he was febrile, complained of abdominal pain, and was in moderate respiratory distress. The chest showed a lag on the left, dullness posteriorly with tympany anteriorly, and absent breath sounds except at the apex. Epigastric tenderness was present. Roentgen study confirmed the diagnosis.

Thoractomy on the left showed a 7-cm. laceration of the diaphragm extending laterally from the hiatus. Most of the stomach had herniated through this rent. The stomach was reduced, the tear in the diaphragm was closed, and the patient recovered uneventfully.

The mechanism of injury in a momentary distortion of the contour of the rib cage has been likened by Desforbes and his associates³ to a wet piece of paper stretched over a hoop. The sudden application of a force to any point of the hoop will bend it, causing a momentary decrease in the diameter in the direction of the force and an increase in diameter at right angles to the force, which is then sufficient to tear the paper. Similarly, a blow to the chest as from a steering wheel might decrease the antero-posterior diameter of the chest, increase the lateral diameter, and tear the diaphragm in an anteroposterior direction. A blow to the lateral aspect of the chest would cause a transverse tear.

Case 3

A 26 year old white man was working under a car suspended by a wrench when the latter broke and the car fell on him. He was in a squatting position and received the blow on the right lateral aspect of the chest. When admitted not long after the accident, he was cold and clammy, with a blood pressure of 94/64 and a pulse rate of 140. The trachea was to the right, and there was tenderness over the right rib cage. Examination of the left side of the chest disclosed dullness and absence of breath sounds. Slight tenderness was present in the left upper quadrant of the abdomen.

Roentgen study showed fractures of the right eighth rib and of the transverse processes of the ninth thoracic through the fourth lumbar vertebrae. The right lung field showed diffuse haziness; on the left, gas shadows were seen above the elevated diaphragm. Thoracotomy on the left showed the diaphragm to be split laterally from the esophageal hiatus almost to the chest wall. The stomach, spleen, part of the colon, and several loops of small bowel were reduced and the rent was closed. The hemothorax on the right was aspirated several times, and the patient recovered without sequelae.

Any operation which requires an incision in the diaphragm is potentially the source of a hernia later. No useful purpose would be served by enumerating these procedures, but two examples will emphasize the possibility. In this clinic, counter incision of the diaphragm is seldom employed in the Allison repair of a hiatal hernia, as 2 patients returned with herniation due to breakdown of this counter incision. Two patients have had intestinal obstruction after operations

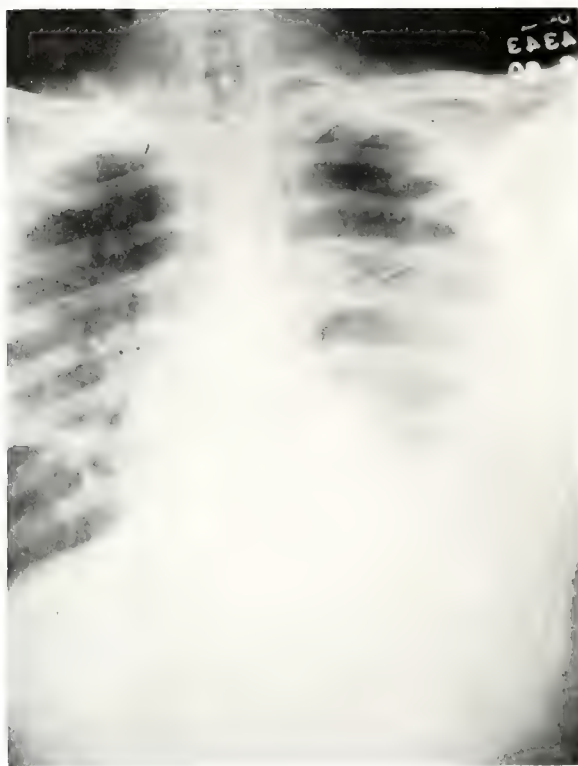


Fig. 1 (Case 3). Patient suffered blow to the right side of the chest, resulting in rupture of the left hemidiaphragm.

on the esophagus when the stomach was brought into the chest. In both, small bowel slipped up alongside the stomach, which had been insecurely attached to the diaphragm.

Early Effects

The immediate effects of injury are naturally dependent on a number of factors, particularly the extent of injuries, the involvement of vital structures, and the degree of hemorrhage. From the standpoint of the diaphragmatic lesion only, the early effects will depend on the site and extent of the opening and the structures which herniate through it.

A rupture or laceration of the diaphragm due to blunt trauma will affect the left hemidiaphragm in approximately 85 per cent of the patients. The size and direction of the opening are variable and may or may not involve the hiatus, and the tear may extend to or around the attachment of the diaphragm to the chest wall. A small laceration

may immediately be plugged by omentum, so that essentially no early disturbance of importance occurs. A large opening may permit immediate displacement of various structures into the left hemithorax, most often the stomach, colon, spleen, and small bowel.

The presence of abdominal organs in the thorax may produce profound respiratory and circulatory disturbances due to compression of the lung on the involved side and mediastinal shift to the opposite side. The changes are somewhat analogous to those caused by tension pneumothorax, particularly if the herniated stomach becomes markedly distended with air and fluid. Dyspnea, cyanosis, and shock may develop and, in the patient who is bleeding from associated injuries, assessment of the symptoms and signs may be difficult.

Although usually a late effect, obstruction or strangulation of the herniated viscus may develop in the period immediately following injury. Most frequently, however, the early effects are those of the cardiorespiratory embarrassment and the associated injuries.

Case 4

A 21 year old Negro woman was in an automobile accident the day of admission. No details were obtained other than that she sustained a blow to the left side of the chest. At her local hospital a diagnosis of ruptured diaphragm was made, and she was transferred immediately.

On admission she was suffering respiratory distress and shock, with a blood pressure of 60/40 and a pulse of 120. The trachea was to the right. The lower part of the left side of the chest was tender and showed a lag and decreased breath sounds. The abdomen was generally tender. The hemoglobin was 9.0 Gm., and the urine was grossly bloody. Roentgenograms showed fractures of the seventh through the tenth ribs on the left, and a large gas shadow in the left hemithorax, thought to represent the stomach.

After transfusion a left thoracotomy showed that most of the stomach had herniated through a rent in the dome of the diaphragm. This opening was enlarged and the ruptured spleen removed. Considerable hematoma was present around the kidney. The stomach was reduced, the diaphragm was closed, and the patient recovered uneventfully.

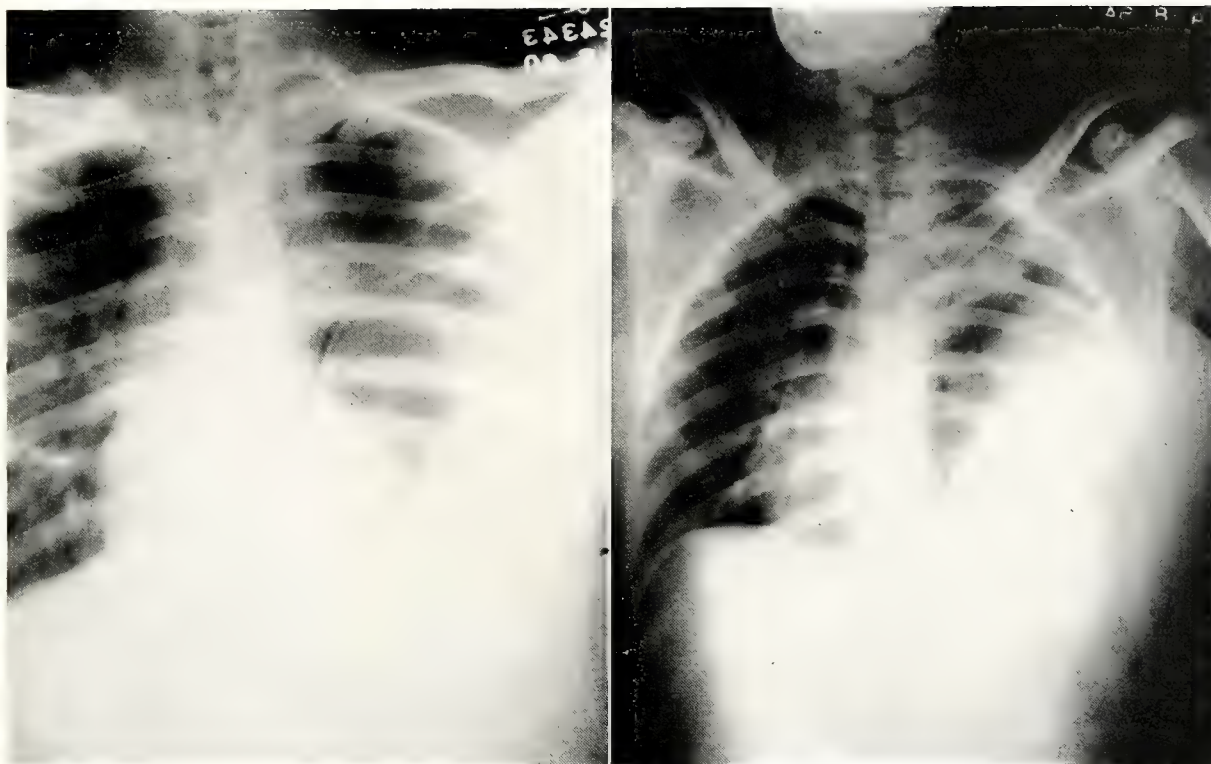


Fig 2 (Case 4). Collapse of the left lung and marked shift of the mediastinum due to herniation of the stomach, causing respiratory distress and responsible in part for shock.

Late Effects

After recovering from the injuries, the patient may enter a latent phase, varying from a few weeks to many years, during which he may be asymptomatic but is more likely to have symptoms referable to the gastrointestinal tract or the thorax. The frequency and intensity of these manifestations depend on the organs herniated and the resultant effect on digestive and respiratory functions.

The final phase is that of obstruction or strangulation. The interval from the time of the injury to this complication varies but is usually within three years. The longest reported interval was 33 years. Table 1 shows an analysis of reported cases by phase²⁻¹⁰. The underlying process here is the same as that for obstruction or strangulation of any hernia. Carter and Giuseffi⁴ reported 4 patients and collected 39 cases of strangulated diaphragmatic hernia from published reports. The strangulated viscus was the colon in 38 cases, the stomach in 20, and the small bowel in 2.

Associated Injuries

Gunshot and stab wounds seldom involve the diaphragm alone, and the associated injuries will obviously depend on the contiguous structures met by the penetrating agent. Injuries sustained by indirect trauma, such as an automobile accident, are likely to be multiple, either associated more or less directly with the injury to the diaphragm or involving more remote structures and organs. Table 2 is a summary of the associated injuries in several reported series^{3, 9-12}.

Several reports have been concerned with various combinations of injuries. Adams and Musselman⁵ recorded 5 patients with a triad of injuries to the spleen, kidney, and diaphragm. Carlson and his associates⁸ described 9 personal cases and collected 90 from other series of ruptured diaphragm due to nonpenetrating trauma, and found 36 to have fractures of the pelvis with or without fracture of the lumbar spine. Fryfogle and his group¹⁰ reported 7 patients with ruptured diaphragm; all had a crushed-

Table 1
Analysis of Cases by Phase

Senior Author	Year	Early	Interval	Obstructive	Total
Carter ⁴	1948	0	0	43	43
Adams ⁵	1954	5	0	0	5
Budgen ⁶	1955	3	0	2	5
Desforbes ³	1957	12	4	0	16
Bernatz ⁷	1958	6	97	9	112
Carlson ⁸	1958	9	0	0	9
Grage ⁹	1959	19	2	5	26
Fryfogle ¹⁰	1960	7	0	0	7
Childress ²	1961	6	15	4	25
Present series		23	7	4	34

chest syndrome, head injury, and injury of the patellae and thumbs due to steering wheel trauma.

The associated injuries may obviously be so severe as to overshadow completely the injury to the diaphragm. In some patients such as those with severe cerebral trauma, death may supervene and the diaphragmatic wound simply be an incidental finding. In less severe trauma, the clinical findings may be dominated by the associated injuries and the rupture of the diaphragm remain undetected, or it may be discovered but precedence given to other more critical injuries.

Diagnosis

With regard to diagnosis, cases may be divided into the same three phases noted

above: early, latent interval, and late. As previously stated, the symptoms and signs manifested immediately after injury may be mainly those of associated injuries, or they may be respiratory and circulatory owing to the rupture of the diaphragm and herniation of the abdominal viscera into the thorax. Less specific but suggestive symptoms are pain in the left upper quadrant of the abdomen, left lower portion of the chest, and left shoulder. The physical signs may be similar to those seen in the interval or late stage, but may be confusing because of air or blood in the thorax.

During the latent interval the patient may be asymptomatic but usually will have fairly consistent symptoms. Bernatz and his associates⁷ had 91 patients in this group in a series of 112. Half of these patients had

Table 2
Injuries Associated with Traumatic Rupture of the Diaphragm

Senior Author Year	Desforbes ³ 1957	Lucido ¹¹ 1957	Carlson ⁸ 1958	Grage ⁹ 1959	Fryfogle ¹⁰ 1960	Probert ¹² 1961	Present Series
Total cases	16	25	99	26	7	15	34
Fractures							
Pelvis	8	8		12		2	7
Spine				1	2	2	2
Pelvis or spine			36				
Extremity	7	7		11	7	2	2
Ribs	8			10		5	8
Lacerations							
Spleen		7	14	9	4	1	7
Liver			2	4	1		4
Kidney			1	2	4		1
Stomach			6	2		1	3
Pancreas			1	1			
Colon				1			1
Cerebral injury	3	9		7	7	1	3

⁹⁰ collected and 9 personal cases

mainly gastrointestinal symptoms, usually upper abdominal distress aggravated by eating, frequently with discomfort referred to the left shoulder. A fourth of the patients noted dyspnea and peculiar sensations in the chest. Another fourth had pain, mainly in the left upper quadrant and left thorax, often radiating to the shoulder. In many cases the pain was aggravated by food or position, and was aching or cramping in nature. Tarry stools occasionally occurred. Gordon Bryan¹³ found that the symptoms in these patients were predominantly one of three types: abdominal, respiratory, or cardiac. The majority had abdominal symptoms consisting of epigastric and referred pain, aggravation by food or position, heart burn, anorexia, vomiting, distention, and constipation. The respiratory symptoms were a feeling of acute suffocation, dyspnea, cough, and a pleuritic-type pain. The cardiac symptoms were mainly palpitation and precordial pain. Carter and associates¹⁴ noted that a bizarre history may be elicited, suggesting peptic ulcer, coronary disease, gallbladder disease, subacute intestinal obstruction, and similar lesions.

Contrary to these reports, most of the patients in our small series had been asymptomatic for long periods after recovery from the initial injuries. In the 7 patients who were in the latent phase, the hernia was found on routine chest film in 2 patients. They had been asymptomatic for two and four years after injury respectively. One patient injured four years earlier had had symptoms for eight months, another injured nine years previously had symptoms for one year, another injured 11 years before had symptoms for five months, and finally, another injured 22 years previously had symptoms for only two months. The 4 patients who were admitted with obstruction were all asymptomatic until the onset of the acute illness, their injuries having been from one to 13 years before.

The classic physical signs, as described by Gibson¹⁵, are (1) diminished excursion of the thorax, (2) impairment of resonance, (3) absence of Litton's sign, (4) adventitious sounds in the thorax, (5) cardiac displacement, and (6) asymmetry of the hypochondrium.

The radiologic findings were recorded by Carter, Giusiffi and Felson¹. They are (1) an arch-like shadow resembling an abnormally high diaphragm, (2) extraneous shadows such as gas bubbles, homogenous densities or other abnormal markings extending above the anticipated level of the normal diaphragm, (3) a shift of the heart and mediastinal structures to the right, and (4) atelectasis in the adjacent lung. Barium studies are usually indicated to identify the organs involved.

Case 5

A 26 year old Negro man was in an automobile accident in 1945. He could recall no injury to the chest or abdomen; only lacerations of tendons in the right arm. In 1951 he first noted growling sounds in the left side of the chest, associated with pain radiating into the abdomen and shoulder. These episodes occurred at intervals of three or four months, usually came on early in the morning or after a meal, and were relieved by a bowel movement. His physician told him that he had a diaphragmatic hernia. He did not seek operation, however, until 1955.

The left side of the chest showed diminished breath sounds and an audible peristalsis. The heart was displaced to the right. By x-ray the left hemidiaphragm was located at the third rib anteriorly; subsequent study showed the stomach, small bowel, and colon in the chest. Operative repair was performed and recovery was uneventful.

The phase of obstruction or strangulation usually begins abruptly with increased pain, nausea, vomiting, obstipation, and dyspnea. The symptoms and signs of high or low intestinal obstruction will then develop, depending on the viscus involved. Severe cardiac and respiratory difficulties may rapidly appear. The physical and radiologic findings are similar to those noted during the latent phase, but are obviously altered by the acute change. These in turn are dependent on the organs involved, the presence or absence of strangulation, the degree of pulmonary compression and cardiac displacement, and the occurrence of such additional complications as ulceration or perforation of the viscus, hemothorax, and aspiration.

Case 6

A 41 year old Negro man had been shot in the left side of the chest with a .45 caliber bullet

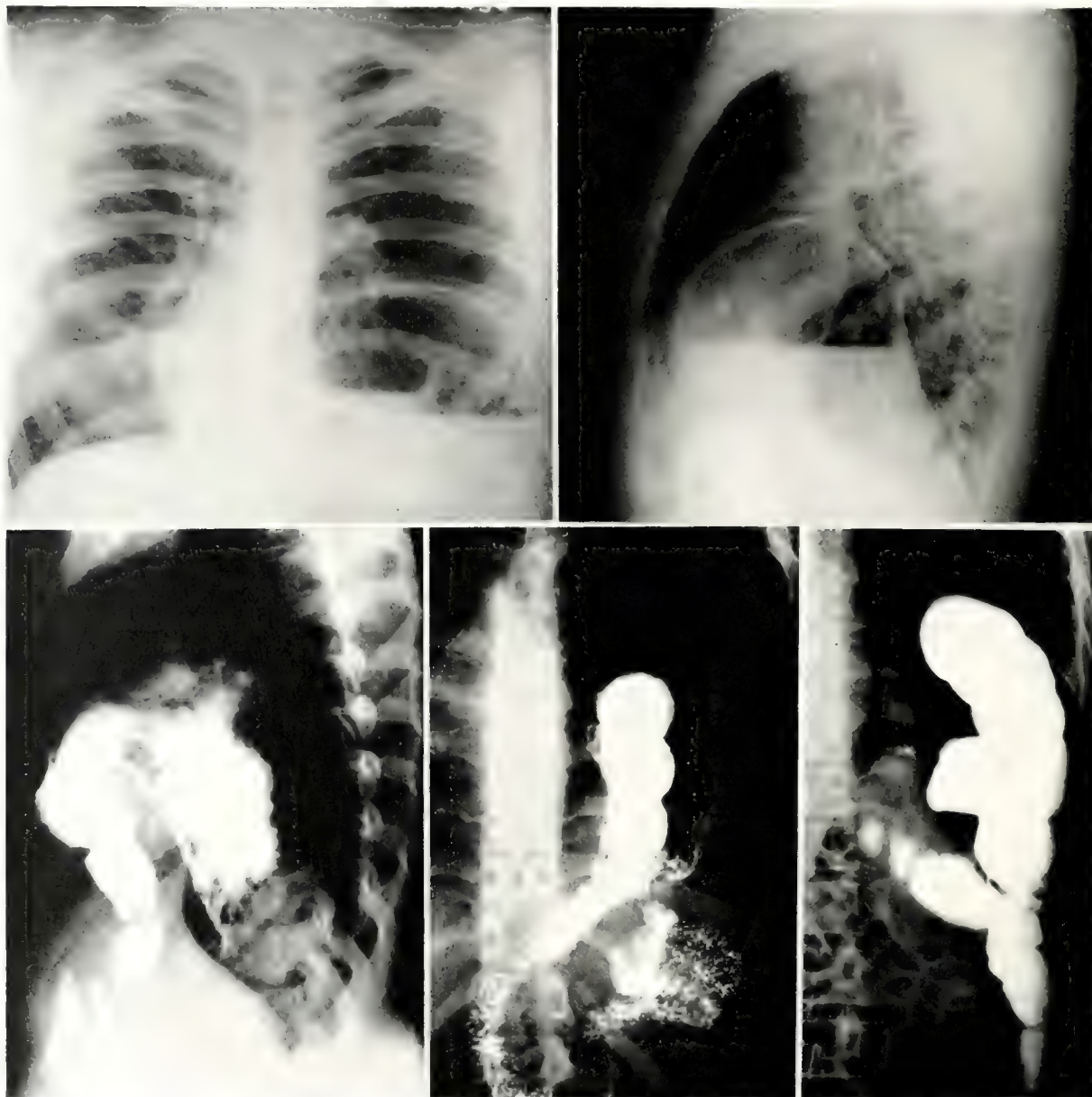


Fig 3 (Case 5). Patient was admitted ten years after being in automobile accident. Above, roentgenograms show the heart shifted to the right, and gas shadows with two fluid levels. Below, left and center films show the stomach to be almost entirely in the thorax; film on right shows that lung segment of the colon is also above the diaphragm.

two years previously. He had recovered promptly and was asymptomatic until the day before admission, when he suffered a sudden onset of abdominal cramps. He took laxatives and induced vomiting, but the cramps became worse and he had no bowel movement.

On admission the vital signs were normal and the lungs were clear. The abdomen was distended, diffusely tender, and the bowel sounds were decreased. Chest films showed a loop of bowel above the diaphragm; barium studies disclosed this to be colon. Dilated loops of small bowel

were seen on the abdominal films. Thoracotomy was performed on the day of admission. The herniated colon was viable. It was reduced and the 2 by 2 cm. defect in the diaphragm was closed. Recovery was uncomplicated.

Treatment

The treatment of the patient seen soon after injury will depend largely on the associated injuries. Time may be gained by decompression of the gastrointestinal tract

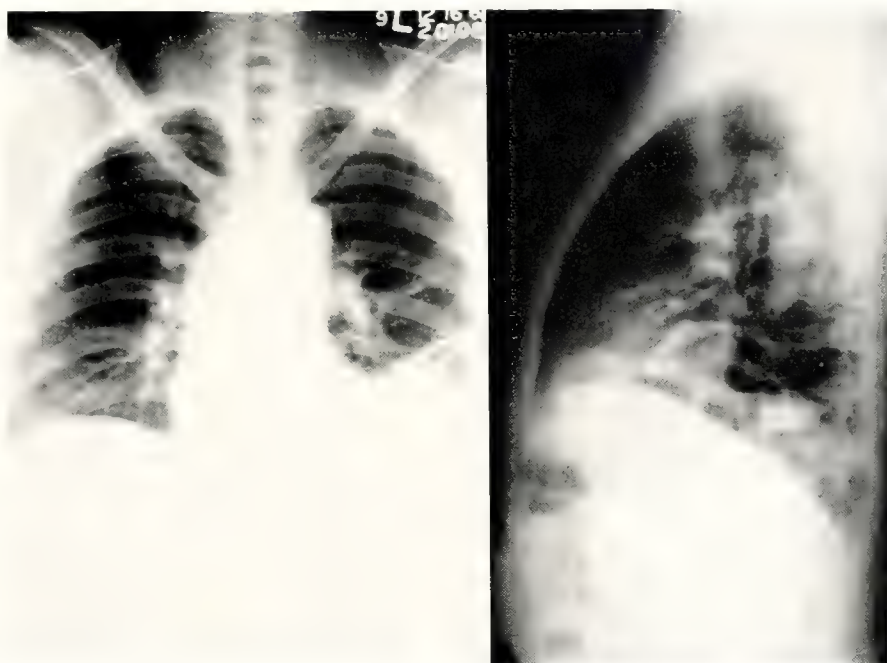


Fig. 4 (Case 6). Roentgenograms showing obstructed colon above the diaphragm, herniated through opening made by bullet two years previously.

and by measures to secure expansion of the lung when time is needed because of other injuries. In the interval phase, operative correction is usually indicated because of the danger of future complications. Obstruction and strangulation obviously require emergency operation. The thoracic approach is preferable because of the better exposure, ease of emptying a dilated stomach, more accurate dissection of the opening and the herniated organs, and more precise repair of the defect.

Results

In the patients seen soon after the accident, the mortality is due mainly to associated injuries, particularly cerebral injury. For example, Grage and his associates⁹ had 19 patients admitted on the day of the accident, and 4 died within six hours after admission before operation could be performed. Three of the 5 patients reported by Adams and Musselman⁵ died, all of injuries other than those to the diaphragm. Lucido¹¹, in his report of 25 patients, stated that most of the deaths were due to head injuries. If the patient survives the original injury so that the diaphragmatic rupture can be re-

paired electively, the mortality rate is low; it increases again if obstruction or strangulation develops. Skinner¹⁶ reported 4 deaths in a series of 10 patients who had strangulation. A summary of several reported series is shown in table 3^{3, 7-10, 12, 16-18}.

Present Series

At this medical center 34 cases of injury to the diaphragm have been recorded. Twenty-three patients were seen soon after the accident, 7 during the interval phase, and 4 after obstruction had developed.

Of the 23 early cases, 9 were due to gunshot wounds: 2 inflicted by shotgun, 2 by rifle, and 5 by pistol. Five involved the left and 4 the right diaphragm. Associated injuries were: of the liver, 4; spleen, 3; stomach, 3; lung, 2; colon, 1; and kidney, 1. All patients recovered after operation except one.

Case 7

A 25 year old Negro woman was admitted three hours after a shotgun wound to the right side of the chest. She was in shock, and operation was performed after resuscitative measures had been administered. The shot had entered through the area of the seventh and eighth ribs anteriorly, passed through the lower lobe, the dome of

Table 3
Mortality with Traumatic Rupture of the Diaphragm

Senior Author	Year	Cases	Deaths	Comment
Desforges ³	1957	16	3	Three deaths in 8 patients seen early
Bernatz ⁷	1958	112	1	Only 6 seen early; 9 had acute obstruction
Carlson ⁸	1958	9	0	All early
Carlson ⁸	1958	90	14	Collected cases
Skinner ¹⁶	1958	10	1	All with strangulation
Grage ⁹	1959	26	8	Four deaths in 19 patents seen early
Fryfogle ¹⁰	1960	7	2	All early
Knight ¹⁷	1960	10	1	Five seen early; 1 death
Chene ¹⁸	1961	12	2	
Childress ²	1961	22	3	
Probert ¹²	1961	10	1	
Present series		34	2	Both deaths occurred in early cases

the diaphragm and the liver, and then lodged in the soft tissues about the twelfth rib. The dome of the liver was torn to shreds and bleeding acutely. This bleeding was controlled, mainly by packs; the diaphragm was closed, and the wound was debrided and partially closed, with drainage. As the bleeding persisted, operation was again necessary the following day. During this procedure cardiac arrest occurred, and the patient failed to respond to any measures.

Fourteen of the 23 patients seen early had blunt trauma. All cases were closed injuries but one. Eleven patients were in automobile accidents, one was hit by a car, a car fell

onto one, and the last was crushed by a tractor which overturned. Only one patient had no other injury.

Associated injuries included the following fractures: of the ribs, 8; pelvis, 7; scapula, 2; clavicle, 2; extremity, 2; and lumbar spine, 2. The spleen was ruptured in 4; 3 had a hematoma about the kidney, and 3 had cerebral concussion. One injury involved the right diaphragm; the others were on the left. Injured organs in the chest were: stomach, 10; colon, 5; small bowel, 2; liver,



Fig. 5. A 32 year old man who sustained shrapnel wounds in 1944 remained asymptomatic until an obstruction of the colon developed in 1957. Roentgenogram on the left shows mass of colon and omentum above the diaphragm; center, opening in the diaphragm after reduction; right, closure of the diaphragm.

2; and spleen, 1. In 4 additional patients, the spleen had been ruptured and was removed. All recovered after operation except one.

Case 8

A 54 year old white man was brought in 30 minutes after an automobile accident in 1938. He was unconscious and in shock. The left clavicle and scapula were fractured. At the left costal margin was a large wound through which the omentum protruded. Signs of a left pneumothorax with marked mediastinal shift to the right were present. After an infusion of blood was started, the wound was debrided and enlarged. The necrotic omentum was excised and the ruptured spleen was removed. A rent in the anterolateral aspect of the diaphragm was closed.

The patient did fairly well for 24 hours, then suffered increasing respiratory distress and fever, and expired. Death was apparently due mainly to pulmonary infection.

Seven patients were admitted from 2 months to 22 years after the original injury. Four were involved in auto accidents, one was run over by a wagon, one fell from a wagon, and one was hurt in a flight. In 4 patients injuries involved the right diaphragm and in 3 the left. Five were operated upon and the following structures were involved: colon, 3; liver, 2; stomach, 1; small bowel, 1; and omentum only, 1. All patients recovered.

Four patients were admitted with obstruction from one to 13 years after the injury. All had been asymptomatic until the onset of the acute illness. One case was due to a shrapnel wound, 1 to a stab wound, and 2 to gunshot wounds. All obstructions were on the left. Three involved the colon; one was gangrenous and was removed by exteriorization through a separate abdominal incision. One patient had a gangrenous stomach which required resection. All recovered.

Summary

Traumatic rupture of the diaphragm may cause early symptoms, usually cardiac and respiratory, or may produce few manifestations for a considerable period after injury.

Diagnosis of the lesion may be difficult;

the classic history and physical signs should lead to a correct diagnosis, but these may be absent, altered or bizarre. Roentgen studies will usually demonstrate the hernia and identify the contents.

Repair of the opening in the diaphragm should be performed when found, because of the danger of obstruction and strangulation.

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Leprosy in North Carolina: Review of a Case

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Over the years the incidence of leprosy (Hansen's disease) in the United States has gradually been reduced to a few new reported cases a year. These are found most frequently in Texas, Florida, Louisiana, and California. Occasionally, cases are discovered in large metropolitan areas, especially among foreign-born individuals. A few other cases are found at random throughout the country, principally among people who have been in contact with known cases of leprosy, or who have traveled or resided in endemic areas in the past¹. The disease seems to be a rarity in North Carolina: only 6 confirmed cases have been reported to the North Carolina State Board of Health since it became a reportable disease in 1944 (table 1).

This report involves the seventh proven case in this state since that date, and the only patient who had neither resided in an endemic area nor been in contact with a known case of the disease.

Case Report

The patient, a 62 year old white woman, was admitted to James Walker Memorial Hospital on January 8, 1962, with complaints of numbness of the feet and ankles and recurrent tender nodules of the arms and legs. She had been in apparent good health until eight years before, when she noticed the gradual development of asymptomatic nodules in the supraorbital regions. These became enlarged over the years and were accompanied by the loss of the eyebrows; however, she remained asymptomatic during this period except for occasional bouts of "arthralgia," particularly in the fingers.

In 1956 she was referred by her family

doctor to a dermatology clinic in another city for evaluation of multiple pruritic papules of indefinite duration on the arms, legs and eyebrows, and a positive serologic test for syphilis. A specimen from a lesion of the right arm was characterized by aggregations of cells possessing foamy pink cytoplasm distributed in a vascular stroma. The diagnosis at that time was reported as benign histiocytoma.

During the two years prior to admission she had approximately six episodes of fever and malaise with associated transient painful nodules over the extensor aspects of the arms and legs. These were tentatively diagnosed by a physician as erythema nodosum and were treated by systemic corticosteroids, resulting in rapid and apparently complete involution. A mild refractory anemia was first discovered about this time. Because repeated VDRL testing continued to be positive, varying from 2 to 50 dilutions, the patient was treated by her family physician with penicillin for presumed syphilis. Six months before admission to the hospital a TPI test was nonreactive. About a year before admission ill defined, dull aching pains unrelated to physical activity were noted in the calves and feet, and became intermittently more severe.

The past history was negative. Family history revealed that her father and six siblings were living and well; her mother had died of a "stroke" at the age of 68. Her first husband had died of a "heart attack"; her second husband was living and well at age 69.

Physical examination

Physical examination on admission revealed a slender but well developed, well nourished white woman who looked her stated age. The temperature was 99, pulse 76, respirations 17, and blood pressure 160

¹From the Departments of Internal Medicine, Dermatology, and Pathology, James Walker Memorial Hospital, Wilmington, North Carolina.

Table 1

Review of Cases Reported To N. C. State Board of Health

Date Reported	Sex	Nationality	Age	Type	Estimated Incubation Period (Years)	Comments
1945	M	Filipino	31	Unknown	2 - 3	Stationed in Philip-pines in World War II
1953	M	White	75	Lepro-matous	20	Had been missionary in in China for 20 yrs.
1954	M	White	59	Unknown	7 - 8	Stationed in Philip-pines 1946 - 1947
1955	M	White	32	Lepro-matous	4	Stationed in Philip-pines 1943 - 1945
1959	M	Negro	35	Lepro-matous	11 - 13	Stationed in Hawaii 1943 - 1945
1950	F	Oriental	26	Tubercu-loid	7 - 10	Lived in Orient as child

systolic, 90 diastolic. There was a dusky, red-purple discoloration over the nose, both cheeks, and supraorbital regions. A minimal exudate was adherent to the nasal septum, but no ulcerations were present. Almost total alopecia of the eyebrows was noted, although scalp hair appeared normal. Various sized ill-defined, movable, moderately firm nontender subcutaneous nodules up to 1 cm. were palpable in the supraorbital areas.

There was 2-plus pitting edema with associated brawny induration and dusky discoloration of the skin of the legs, ankles, and dorsa of the feet. Multiple subcutaneous nodularities were present in the pretibial regions, and a single slightly tender raised nodule 1 cm. in diameter was located on the anterolateral aspect of the right ankle. The metacarpophalangeal joints of both hands were slightly enlarged, and there was some tenderness and limitation of motion. The other joints appeared normal.

Neurologic examination revealed hypes-thesia of both lower extremities from the mid-calves distally. The ulnar nerves were thought to be somewhat enlarged, and mild atrophy of both thenar and hypothenar eminences was present. Also, there was minimal interosseous atrophy of both hands. The dorsalis pedis and posterior tibial artery pulsations were full and bounding bilaterally. The remainder of the physical examination was within normal limits.

Accessory clinical findings

Laboratory studies included the following: The serum calcium was 11 mg. per 100 ml.; an RA test was positive; the serum protein was 6.8 with normal electrophoresis. The protein-bound iodine was 3.7 micrograms per 100 ml., and ET₃ (erythrocyte uptake of I¹³¹-triiodothyronine) was 10 per cent. The sedimentation rate was 40 mm. corrected. The hemoglobin was 10.5 Gm., and the white blood cell count 6,800 with

normal differential. On this occasion the VDRL was negative. Three tests for lupus erythematosus cells were negative.

Roentgenograms of both hands showed slight fusiform swellings of the soft tissue about the proximal interphalangeal joints, with no definite narrowing of the joint spaces. A smear from the nasal mucous membrane was negative for acid fast bacteria.

Pathologic findings

Tissue specimens and smears were taken from a lesion in the left supraorbital region and the nodule on the right ankle. Both specimens were positive for acid-fast bacilli on direct smear.

Microscopic examination of the indurated tissue revealed skeletal muscle bundles separated and partially replaced by masses of vascular connective tissue and fat. These areas were infiltrated by nodular granulomatous proliferations related primarily to nerves and blood vessels, and were characterized by closely aggregated histiocytes containing prominently vacuolated cytoplasm with a tendency to coalesce into large globi. Cutaneous nerves were distorted by fibrous tissue and densely infiltrated by histiocytes which were particularly prominent in the perineurium. Acid-fast stains by the technique of Fite demonstrated numerous brightly staining, somewhat beady bacteria which were particularly abundant in the cytoplasm of the histiocytes.

The lesion from the leg was similar, although there was a zone of fibrinoid necrosis surrounded by areas of scarring and fibrocytic proliferation. This picture was fairly typical of erythema nodosum, although any related vascular reaction was obscured. Adjacent scarred areas suggestive of healed lesions of the same type were also present. Acid-fast bacteria again were noted within vacuolated histiocytes about small blood vessels and sweat glands. The diagnosis of lepromatous leprosy was made (figs. 1, 2, and 3). Later these slides were reviewed by Dr. George L. Fite at Carville Leprosarium, who concurred in this diagnosis.

After the diagnosis of leprosy was established, the biopsy specimen of 1956 was re-

viewed and stained by the Fite method. A typical lepromatous lesion with large numbers of acid-fast bacteria was demonstrated.

The patient chose to be treated at home rather than at Carville. Sodium sulfoxone was started in a dosage of 0.33 Gm. once weekly and slowly increased to 0.66 Gm. daily. She has tolerated this treatment well and claims subjective improvement. There has been no recurrence of the erythema nodosum after nine months of therapy.

Discussion

Leprosy is a communicable disease, and has been generally considered to be transmitted directly by prolonged and intimate contact with a diseased person having open lesions. This view, however, has been challenged, and there is considerable evidence that on rare and unpredictable occasions even minimal contact by a highly susceptible individual is adequate for infection¹.

The present case is consistent with the latter theory of transmission by casual contact, inasmuch as the patient was born in Moore County, North Carolina, and resided there until she moved to Bladen County five years ago. Her only out-of-state visit prior to the onset of the disease was to Jacksonville, Florida, about 17 years ago, for a period of three weeks. She maintains that during this visit she had no contact with anyone except members of her immediate family, all of whom have been considered to be free of the disease. Thorough investigative epidemiologic studies were made in the patient's locale, and no apparent contacts were found. Since the patient apparently contracted the disease in North Carolina, physicians practicing in the state should be alert to the possibility of other undiscovered cases in the area.

As in the case with many rare diseases, leprosy is not difficult to diagnose if it is considered at the right time. Valuable clues in this case included the presence of the presence of the peculiar nodular lesions in the supraorbital regions and the extremities; loss of eyebrows; repeated episodes of erythema nodosum over a period of years; biologically false-positive serologic

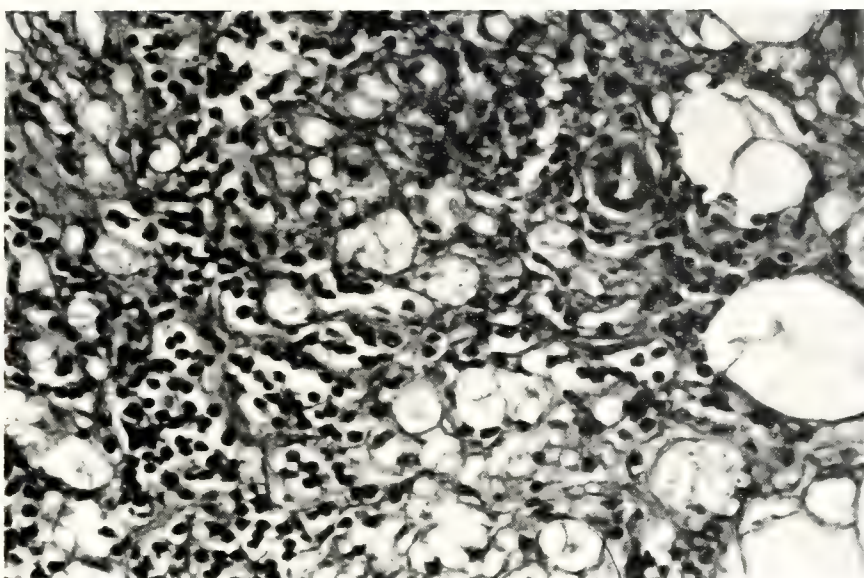


Fig. 1. High power photomicrograph of subcutaneous lesion showing abundant histiocytic elements with foamy and vacuolated cytoplasm and a tendency to coalesce into globi.

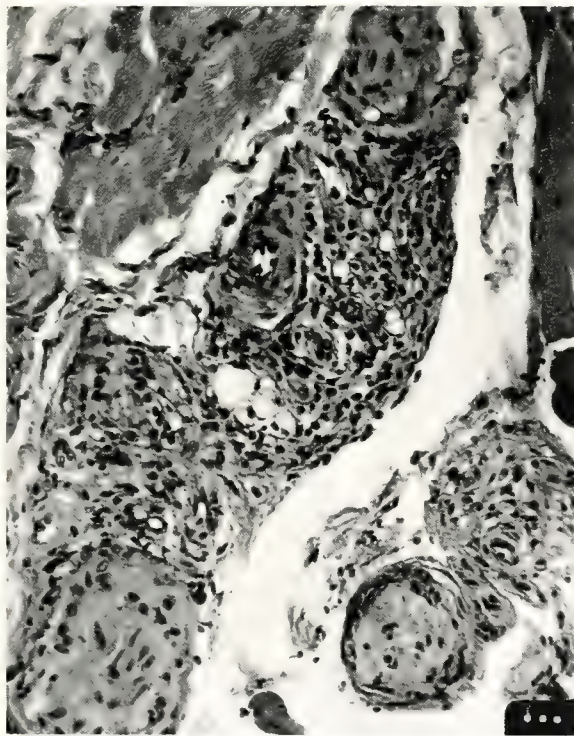


Fig. 2. Section illustrating nerve and perivascular involvement.

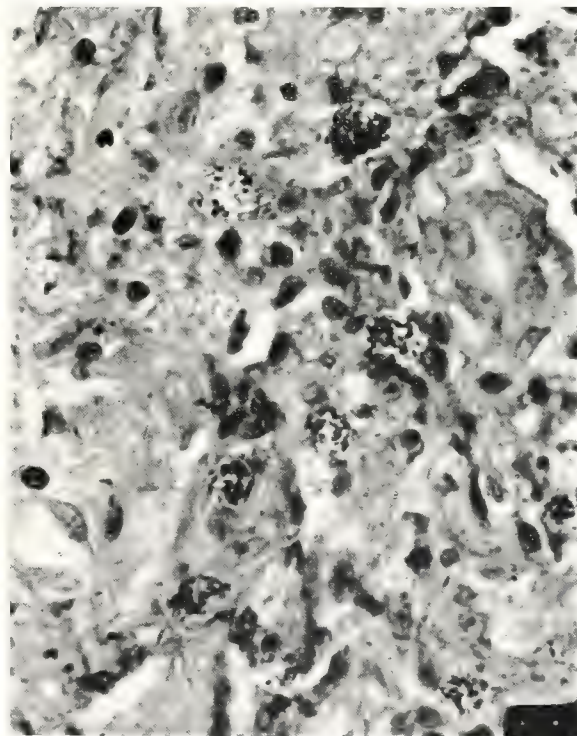


Fig. 3. Oil immersion of Fite stain showing groups of *M. leprae* organisms.

tests for syphilis, and hypesthesia of lower extremities. A particularly interesting feature was the presence of a positive RA test, a reflection, together with the biologic false positive VDRL tests, of serum protein abnormalities not demonstrable by routine

paper electrophoresis.

The occurrence of repeated bouts of erythema nodosum is a common dermatologic finding and has many underlying etiologic components. As has been shown in this and other cases, leprosy should be in-

cluded in this list. Erythema nodosum leprosum is in reality a lepra reaction occurring in lepromatous leprosy. Whether or not this indicates a good or bad prognosis in a specific case is at present debatable⁵.

This case illustrates clearly that correct histologic diagnosis is more likely in any obscure disease if the pathologist is furnished adequate clinical information and is given the opportunity to see the patient and the lesion in order to advise the proper biopsy procedure. In cases of atypical histiocytic proliferations or xanthomatoid lesions, leprosy should be considered in a differential diagnosis even in nonendemic areas, and appropriate acid-fast stains should be made.

Summary

A case of leprosy diagnosed in southeastern North Carolina and presumably acquir-

ed in North Carolina is presented. Attention is drawn to the possibility of other unrecognized cases in this nonendemic area.

The authors wish to express gratitude to Dr. George M. Johnson, E. I. S. officer of the United States Public Health Service, for making available to us information from the North Carolina State Board of Health, and for his studies in the epidemiology of this case.

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* * *

Community Health: A Cooperative Responsibility

DAVID GOF WELTON, M.D.

CHARLOTTE

For the physician, participation in local public affairs is a professional responsibility. A recent editorial in the A.M.A. News stated that "The doctor's duty toward his community goes beyond that of most citizens." In the Principles of Medical Ethics of the American Medical Association it is stated that "The responsibilities of the physician extend not only to the *individual*, but also to *society*, where these responsibilities deserve his interest and participation in activities which have the purpose of improving both the health and the well being of the individual and the community."

Think for a moment of the difficulty of trying to keep an *individual* healthy an *unhealthy* community. It really cannot be done. Therefore, our responsibility as the patient's physician does not stop when he departs from our office. Increasing realization of this fact has prompted more frequent efforts to encourage broad participation by

physicians in all community affairs. Yesterday we heard a good deal about AMPAC. Today, I want to emphasize the need of IMPACT of the physician in all of his activities in order to achieve a high level of community health.

Article II of the Constitution and Bylaws of the Mecklenburg County Medical Society states that the purpose of the Society is "to make effective the opinions of the profession in all scientific, legislative, and public health affairs, to the end that the profession may receive the respect and *support* within its own ranks and from the community to which its honorable history and great achievements entitle it." Such support from the community must be *earned*. One committee of our county medical society is assigned "to cooperate with the Department of Public Health of Charlotte and Mecklenburg County in all matters of public health." In addition, our county society president attends each of the meetings of the boards of health. While he does not have a vote, he does participate in all discussions, serving very effectively as a liaison officer and

Presented as part of a panel on "The County Medical Society and Community Health", M. B. Bethel, M.D., Moderator and Director of Department of Environmental Health, A.M.A. Institute, Chicago, August 31, 1962.

helping significantly to maintain mutually satisfactory rapport. For example, before a new program or project involving physicians of the county is undertaken, he assists in presenting the matter to the cabinet of the county society and in obtaining their endorsement of it.

The two requisites, therefore, for achieving community support are: (1) to bring about a refreshing, forcefully, of the physician's dual responsibility—that is, to his patient and to his community; and (2) to establish a practical, cooperative relationship between the local health department and the local medical society, based on mutual understanding and respect. This requires regular and adequate communication.

So far I have stressed the dual responsibility of the physicians in private practice in any community. Now let's look at the matter from "the other side of the fence"—that is, from the position of the health department. What should be its attitude toward the practicing physicians in the community and toward the county medical society?

Primarily, of course, the health department is charged with maintaining good community health rather than in rendering individual medical service. As a matter of over-all policy, Dr. George James, first Deputy Commissioner of the New York City Department of Health, states: "Local health services should be designed solely to meet specific health needs effectively and efficiently." This means that the health department should avoid interfering with private practice. As a specific example, the health department should refrain from giving free smallpox vaccinations and typhoid vaccinations to "cruise customers" who are able to afford foreign travel and therefore are well able to obtain these services from their private physicians. If this policy is not followed, criticism from physicians in private practice is bound to develop, but by confining "free" vaccinations to the indigent, such criticism can be converted into support.

It is extremely desirable for the health department to obtain the approval of the

county medical society before initiating new mass screening or immunization programs. If the approval cannot be obtained, then the project should be postponed for further study or cancelled. Conversely, if the county medical society desires to undertake for the benefit of the community a mass program of this nature, full discussion with the officials of the health department should be held in advance, in order to achieve maximum effectiveness.

Of course, it is neither the intent nor the desire of the local medical society to interfere in any way with the health department's traditional responsibility in the field of environmental sanitation, epidemic control, and other accepted routine programs. The county society as such and the individuals members should give full support and cooperation to the carrying out of these endeavors. But in the consideration and planning of new problems and new methods of attacking them, such as the current efforts to improve home-nursing service for specific needs, certainly cooperation is essential.

Summarized here are some of the successful programs worked out jointly by our health department and the membership of the county medical society. In some cases the initiative was taken by a relatively small group of physicians, in some cases by the county society as a whole, and in some cases by the health department.

1. *High school football players are examined without charge* by private physicians, in the health department building. The health department and the local Dental Society have jointly encouraged the use of improved mouth guards for the players.

2. *The Crippled Children's Clinic*, a large volume clinic for the medically indigent, is held regularly three to four times a month. Six private orthopedic surgeons and seven nurses participate.

3. *The Children's Heart Services Clinic* (including rheumatic fever) is held once a week, with an internist, a pediatrician, and a cardiac surgeon participating. Currently 244 patients—for the most part medically indigent—are being treated.

4. *Periodic community-wide surveys*: The

first such survey was initiated in 1951 by the county medical society, with the cooperation of the dental society, the department of health, hospitals and other agencies. This survey was repeated ten years later on a much broader scale, under full community sponsorship. This was an instance of the county medical society leading the way.

5. *A county-wide tetanus immunization program* was conducted in October, 1962 as a part of the state-wide endeavor instituted some months previously.

6. *Planned parenthood*: One of the pioneer Enovid programs in the South was initiated by the welfare and health departments working together. Patients are welfare department clients who come on a voluntary basis. The educational aspects are emphasized.

7. *Hepatitis prevention*: During 1961 and 1962 the incidence of hepatitis was minimized effectively by a special educational endeavor initiated by the Boards of Health. Full and detailed instructions concerning the adequate sterilization of syringes and instruments were circulated to all physicians, dentists, and veterinarians in the county.

8. *Mental Health Clinic*: Increasing coordination of the program of this clinic with that of the health department is being achieved with the cooperation of the psychiatrists in private practice.

9. *Mecklenburg County's Experimental Stroke Rehabilitation Program*: The U. S. Public Health Service has approved a 60 thousand dollar grant to help finance this three-year pilot project. A Charlotte internist will serve as part-time medical consultant. The chief aim of this program is to provide personnel to give aid and instruction to patients and their families in their homes, under the supervision and orders of the patient's own physician. Only physician-referred patients are to be accepted, but they may include both private and medically indigent. As a result of this project, lengthy, expensive periods of hospitalization may be shortened or eliminated for many of these patients.

10. *Health Center Auditorium*. The fact

that the county medical society chooses to meet here is symbolic of the harmonious relationship between the two organizations. This auditorium is also available to many community groups.

Summary and Conclusion

I have stressed the need for increasing realization on the part of individual physicians of their responsibility in the whole realm of community health. It is most desirable that each community have a first rate department of public health. Believe me, a second- or third-rate health department is no asset to the private practice of medicine in any community. Time after time it has been demonstrated that educational programs and other services of a first-rate public health department bring more patients into the offices of private physicians in that community.

We have been most fortunate in Charlotte and Mecklenburg County in having an outstanding health department which is supported adequately, both financially and otherwise, by the community and by the county medical and dental societies and other health service groups. This did not just happen. It is the result of mutual efforts on the part of the department of health and leaders of the county medical and dental societies which brought about a harmonious, cooperative relationship. In addition, and most important, solid support for the programs of the health department has been obtained from the City Council and the County Board of Commissioners. This has resulted largely from the fact that the members of these governmental units have a conscientious and cooperative interest in the promotion of better health for the entire community, and an adequate line of communication to them has been maintained.

In my opinion, our goal should be to increase the influence, the IMPACT, of physicians in the whole community health picture—its needs, its facilities, its services. An excellent definition of public relations stresses two key points—(1) performance, and (2) interpretation. Both are equally important and necessary in order to achieve

better community health. We need first-rate health departments plus conscientious physicians in private practice, working together effectively. And we need successful interpretation through communication, not just between the health department and the local medical society, but also including the public.

Report from The Duke University Poison Control Center

JAY M. ARENA, M.D., *Director*

ALCOHOL, METHYL (METHANOL)

Methyl alcohol, which is obtained from the destructive distillation of wood, is often called "wood alcohol." It is used industrially in chemical synthesis, in antifreeze, as a solvent in shellac and varnish, as paint remover, and as a denaturant in denatured alcohol. The lethal dose varies between 60 to 250 ml. (2 to 8 ounces). The MAC in air is 200 ppm.

Methyl alcohol is much more slowly oxidized in the body than is ethyl alcohol. Even after two days, one-third of it remains in the body. Furthermore, it is incompletely burned in the tissues and is oxidized to form formic acid, whereas ethyl alcohol is converted into carbon dioxide and water. Severe acidosis is produced by the metabolic product, formic acid, and the pH of the urine may reach 5.0 from the large amounts of formate excreted. In fatal cases, parenchymatous changes are found in the eyes, liver, kidneys and heart. Edema and petechial hemorrhages occur in the brain, lungs, and gastrointestinal tract.

Methyl alcohol intoxication is similar to that seen with ethyl alcohol except that coma intervenes more readily and the central nervous system depression is more prolonged. Severe gastrointestinal cramps and vomiting due to the irritant action of methyl alcohol are quite characteristic. Vision is often disturbed and blurred early in the course of poisoning. The pupils are dilated and do not respond to light. Acidosis, which is characteristic and may be severe, results from the formic acid produced in the body

by the oxidation of methyl alcohol. Cyanosis and dyspnea are common. Cardiac depression is frequent with this compound, which itself and through the formation of formic acid acts as a cardiac intoxicant. Respiratory and circulatory failure finally develop after many hours or several days of delirium or coma, and result in death. If recovery occurs it is usually slow, and blindness may be permanent. This prolonged and serious course of poisoning is quite in contrast to that seen from ethyl alcohol.

Treatment

Keep the patient warm and in bed. Protect the eyes from light. Control severe acidosis quickly, slowly injecting intravenously a 3-5 per cent solution of sodium bicarbonate or 160 ml. of sodium lactate solution in 1000 ml. of physiologic saline. Depending on the severity of the poisoning, 150 Gm. of sodium bicarbonate may be necessary. Check the pH and the carbon dioxide combining power of the blood, or administer alkali until the urine is alkaline. Improvement in the patient's respiration is a good clinical guide.

The patient must be watched closely as patients thus treated with alkali soon become acidotic again. If the patient's respiration is rapidly failing or if he is in shock, oxygen should be administered at once. Nikethamide (3 ml. of a 25 per cent solution) may be given intravenously slowly. For cerebral edema or hypoglycemia, the administration of hypertonic glucose solution is indicated. Sodium pentobarbital may be necessary for controlling the delirium which often follows. The use of ethyl alcohol to inhibit or diminish the toxic effects of methanol, although effective in rhesus monkeys, is still questionable therapy for humans.

Recent studies have shown the feasibility of artificial dialysis in the treatment. It has been demonstrated in laboratory animals that methyl alcohol and its metabolic by-products, formic acid and formaldehyde, can be removed by hemodialysis. The dramatic effectiveness of the artificial kidney has been lately reported as being a life saving procedure in at least one adult.

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NORTH CAROLINA'S CONTRIBUTION TO THE NATIONAL INSTITUTES OF HEALTH

In a feature article, *World Medical News* for October 12 says that the National Institutes of Health is facing a crisis because so many of its best men are leaving it to get much larger salaries at universities and medical schools. Ironically, the NIH, through its liberal research grants, has made it possible for these institutions to offer the higher salaries.

One item in the *Medical World News* story should be of particular interest to North Carolinians.

The government's role in medical research began modestly just 75 years ago, when Dr. Joseph Kinyoun, 27, opened a one-room "Laboratory of Hygiene" at the Staten Island, N. Y., Marine Hospital. In the very first year, Dr. Kinyoun demonstrated *Vibrio cholerae* in

immigrants, marking the first PHS recognition of the existence of bacteria.

With prophetic vision, Dr. Kinyoun predicted "the scope of work of this character will constantly widen; its utility is unquestionable." In 1891 the tiny laboratory was moved to Washington and in 1901 it won a handsome \$35,000 appropriation from Congress.

During 1930, the Laboratory of Hygiene was redesignated as the National Institute of Health. In 1937, the National Cancer Institute was added, and a year later operations were moved to NIH's present home . . . in Bethesda.

The *World Medical News* did not state, however, that Dr. Kinyoun was born in Yadkin, and frequently visited relatives in his old home town and in Winston-Salem. He was first cousin of the late Dr. W. J. Conrad, a well known dentist of Winston-Salem. Dr. Conrad's son William is now president of the Board of Trustees of Wake Forest College.

In 1915 or 1916, the NIH loaned Dr. Kinyoun to the Winston-Salem Health Department, where he rendered splendid service in organizing it on a modern basis.

* * *

A.M.A.'s EDUCATION AND RESEARCH FOUNDATION

There are at least three reasons why physicians should contribute to the American Medical Association Education and Research Foundation: (1) to repay in part the subsidy given them during their own medical school training; (2) because private gifts are needed to sustain the freedom of our medical schools; and (3) to let business and industrial leaders know that physicians recognize their responsibility and are meeting it through personal contributions.

One of the most important new objectives of the Education and Research Foundation is a loan program for medical students, interns, and residents. The goal of this program is to help eliminate the financial barrier to medicine for all who are qualified and accepted by approved training institutions. It is designed to provide a means of financing a substantial portion of the cost of a medical education.

The loan program for medical students, interns, and residents is the result of a co-

operative effort by American medicine and private enterprise. The Education Research Foundation has established a loan guarantee fund. On the basis of this fund, the bank will lend up to \$1500 each year to students. The ERF in effect acts as co-signer. For each dollar on deposit in the loan guarantee fund, the bank will lend up to \$12.50.

More than 3300 students, interns, and residents have borrowed more than \$6,000,000 through this fund since it was started last February. Physicians and other have contributed almost \$700,000 to it. In North Carolina through August 20, \$34,900 had been loaned to medical students, and \$14,100 to house officers.

Because there has apparently been some confusion as to the ways in which contributions to medical education may be made, it is in order to point out that there are several wholly acceptable channels:

1. Directly to the medical school
3. To AMERF
 - a. Designated for the school of the physician's choice
 - b. Designated for the A.M.A. student loan program
 - c. Undesignated.

The loan guarantee fund is almost depleted, and more money is needed immediately to keep up the loan program. Eventually it will become self-sustaining as loans are repaid, but right now substantial financial help is needed. Your check to the AMA-ERF, 535 North Dearborn Street, Chicago, will help to keep this important program viable. Contributions to the Foundation are tax-deductible.

* * *

THE INDEPENDENT VOTER

The editor of this journal got his first experience in journalism as editor of the *Wake Forest Student*. In the *Student* for November, 1904, he wrote an editorial on the independent voter—two years before he could vote himself. A recent re-reading of this editorial inspired the hope that, in spite of its immaturity, it is still pertinent in this election year. So, craving the indulgence of our readers for forsaking real and false

modesty, here it is, just as it was written 58 years ago.

THE INDEPENDENT VOTER

While the general results of the last election were not unexpected, there were some unusual features presented in a number of states. Most striking among these were Missouri and Massachusetts. Each of these states gave an overwhelming majority for the Republican national ticket, yet each elected a Democrat for governor by a large majority. This fact indicates that the independent voter has become a factor that must be reckoned with in the great game of politics. By the term "independent voter" we do not mean one whose vote is to be bought, but one who when some great moral issue is at stake votes conscientiously for the candidate who he thinks stands on the right side of such a question regardless of party distinction.

While the growing prominence of this class of voters may be a source of annoyance to the party "boss," we think it a very hopeful sign. It shows that the mass of the people are beginning to take notice of the corruption which has been going on in some sections of our country, and that they are taking the best method of showing their disapproval of it and their desire for reform. We do not want to be understood to mean that a man should not have a party and should vote with first one then another just as his fancy seizes him. Each party in the main stands for some great principles. Every citizen ought to understand those principles and, as a rule, vote with the party whose principles he can conscientiously endorse. However . . . when the issue is between reform and corruption, we honestly believe that it is a voter's duty to cast his ballot with a man who stands for moral reform.

The independent voter should teach the party leaders that people can no longer be driven blindly into voting with one party. The voter is a free citizen whose rights must be respected. It also ought to show them that a great party cannot in the face of an awakened public opinion afford to put a corrupt man in nomination, merely because

he belongs to "the party." When they are all led to realize this fact, we believe that there will be a great change for the better in American politics and that we will have fewer politicians and more statesmen.

* * *

OPERATION IMPACT

Dr. David Goe Welton's contribution to the American Medical Association panel discussion on "The County Medical Society and Community Health," which appears in this issue, deserves special mention. No member of our State Society is better qualified than is Dr. Welton to discuss the subject assigned him: "Community Health: A Cooperative Responsibility." This paper is of especial significance in view of the possible state-wide mass polio immunization program, and is commended to our readers for careful study.

* * *

INFANT FEEDING IN RUSSIA

The Department of Health, Education and Welfare has recently published a report of the 1960 Medical Exchange Mission to the USSR, "Maternal and Child Care." This Mission and others preceding it since 1956 offer a gleam of hope that relations between the United States and the Soviet Union may be bettered as a result of the contact between representatives of the medical profession in each country.

One statement in the report is evidence that we can learn from the Russians. In a chapter on obstetric care in the Soviet Union, we are told that "Nursing is so thoroughly stressed that no other provision is routinely made. Should breast feeding fail, the mother is provided with breast milk from one of the breast-milk banks. An effort is made to keep each child on breast milk—either from its own mother or from the bank—until it is at least 4 months old."

Dr. Frank Howard Richardson, who has long been an almost lone voice in the wilderness advocating a return to breast feeding, will approve heartily this recognition of the fact that mothers *can* feed their babies as nature intended. It must be admitted that it is the custom in this country

to discourage the mother from attempting it. In virtually all our hospitals the young mother is not given a chance to see whether or not she can nurse her own offspring—much less contribute to a milk bank for other babies. And yet the lapse of almost a century has not disproved Oliver Wendell Holmes's statement that "A pair of substantial mammary glands has the advantage over the two hemispheres of the most learned Professor's brain, in the art of compounding a nutritious fluid for infants."

* * *

ONE MORE REPRIEVE

When a majority of four U. S. Senators killed a bi-partisan compromise version of the King-Anderson Bill, they granted American medicine one more reprieve—one more chance to meet and solve a national social problem by voluntary action.

Our profession is challenged more urgently than ever to provide a *better* prepayment program—not only for the aged citizens—but for all classes and conditions of the American people.

Survey after survey has shown that workers, employers, and individual citizens in every walk of life are "sold" on prepaid medical care, that they want a broader program of benefits, a higher degree of assurance that their contracts will pay their doctor bills in full—and the assurance that their doctor will be adequately compensated for his services. These surveys show, too, that the people are willing to pay more for more and better prepaid care.

American medicine—through the instrumentality of Blue Shield—has gone a long way toward meeting this challenge. And there's no doubt that—if it is imaginatively and boldly utilized—Blue Shield can do the rest of the job, and can turn back once and for all the long-impending threat of socialized medicine in the United States.

We have a long way to go yet—to prove our case. But we have the tools, the talents—and most certainly the incentive—to show the world that free doctors and free citizens, working together, can solve their own mutual problems.

President's Message

INSURANCE PROGRAMS AVAILABLE FOR MEMBERS OF THE MEDICAL SOCIETY

The Medical Society has endorsed and participates in a disability health insurance program which was first studied carefully and recommended approximately 22 years ago to our membership. For several years Dr. Joseph Cooper has been chairman of the Committee on Insurance. The program has recently been reviewed and a brochure was mailed each member outlining the expansion of the program. Over 1600 of the members, with an average age of approximately 45 years, now participate in the program. In reviewing the benefits available one finds that the benefits and costs are comparable and competitive with any other program available today in the country. The servicing of this program has been under the direction of Mr. J. L. Crumpton who has been most cooperative and efficient in carrying out his duties. Most recently there have been several mailings to our members suggesting programs of other large medical groups. I am referring especially to the SMA-AMA program. It comes to my attention that this has been unduly advertised and not endorsed as such by the American Medical Association or the North Carolina Medical Society. I strongly urge that all interested members carefully review the programs that they have on disability health insurance prior to making any change in their coverage. You will find that the recommendations and the support of our Committee is most sincere and worthwhile.

The second program of insurance that is available to our members is the Professional Liability Program underwritten by the St. Paul Insurance Company. Again, the Committee investigated several programs and decided upon endorsement of the one now being carried by a large number of our membership. The program has been in effect since 1956. The Society has had an extremely low claim expense ratio. As a result of this, rates have been reduced three times since the start of the program. During the past year there has been an increased

number of claims and the reserve set up for these over several years are quite adequate. There is definite desire for more members in the Society to participate in the program. The benefits of being covered under this plan are primarily the results of the effect of the Medical-Legal Committees that are now functioning in each county society, plus the recent standards of medical-legal guidelines set up during the past year by the joint committees of these two associations. This provides the uniform method of valuing and handling claims through committees of the State Society. Several things should be remembered regardless of which company covers you for professional liability. These are: (1) Any time you have a potential patient claim, notify your agency immediately. This expedites the handling of such a claim and permits much better results from the standpoint of financial as well as rapport with the individual.

(2) North Carolina has a very low claims rate in all of its professional liability programs and to keep this low it is necessary that we maintain a discrete (tight mouth) in regard to our professional associates and their complications. Complications should be maintained in the bounds of professional ethics. Loose nonfactual talk will not help anyone; this will only create a greater claim and liability problem.

(3) Recommendations have been made for all to consider listening to your Medical-Legal Committee in the local county society for action on all claims.

(4) Since we have a lower rate in North Carolina, let's keep it that way by careful analysis of our problems.

These two programs of disability health insurance and professional liability insurance are a part of the benefits derived by belonging to the Medical Society of the State of North Carolina. Take advantage of them and enjoy the fruits of their production.

JOHN R. KERNODLE, M.D.

Committees & Organizations

JOINT STATEMENT ON NARCOTIC ADDICTION IN THE UNITED STATES

BY

AMERICAN MEDICAL ASSOCIATION
AND

NATIONAL RESEARCH COUNCIL
OF THE
NATIONAL ACADEMY OF SCIENCES

The American Medical Association, and the National Research Council for many years have studied the narcotic drug addiction problem. To assist in carrying out its studies, the American Medical Association collaborated with the American Bar Association in establishing a Joint Committee which made an Interim Report to the two organizations in 1958, and a Final Report in 1959.

It is concluded that there is widespread public and professional misunderstanding about this subject, specifically (1) that the Federal Bureau of Narcotics believes drug addiction to be a crime; a belief that is contrary to the Federal law and its application by the Bureau, and (2) that the American Medical Association proposes the establishment of community ambulatory clinics for the withdrawal of narcotics from addicts or for the continuing maintenance of addicts on narcotics; a belief that is contrary to the official position of the American Medical Association.

Historically society has found it necessary to employ legal controls to prevent the spread of certain types of illness that constitute a hazard to the public health. Drug addiction is such a hazard.

The successful treatment of narcotic addicts in the United States requires extensive post-withdrawal rehabilitation and other therapeutic services.

The maintenance of stable dosage levels in individuals addicted to narcotics is generally inadequate and medically unsound, and ambulatory clinic plans for the withdrawal of narcotics from addicts are likewise generally inadequate and medically unsound.

The American Medical Association and

the National Research Council support (1) after complete withdrawal, follow-up treatment for addicts, including that available at rehabilitation centers, (2) measures designed to permit the compulsory civil commitment of drug addicts for treatment in a drug-free environment, (3) the advancement of methods and measures towards rehabilitation of the addict under continuing civil commitment, (4) the development of research designed to gain new knowledge about the prevention of drug addiction and the treatment of addicted persons, and (5) the dissemination of factual information on narcotic addiction.

Mr. Henry L. Giordano as the Acting Commissioner of the Bureau of Narcotics issued the following statement:

"The Federal Bureau of Narcotics wishes to express its complete approval of the views contained in the Statement of the American Medical Association and the National Research Council. The American Medical Association — National Research Council statement clarifies a subject on which there has been widespread public and professional misunderstanding. The Bureau of Narcotics subscribes completely to the view that the federal law does not consider drug addiction a crime. The National Research Council and the American Medical Association have performed an outstanding public service which will greatly advance the joint efforts of the law enforcement agencies and medical-health organizations who are charged with the responsibility for dealing with the narcotic drug problem.

"The Bureau is pleased to note that the American Medical Association has reaffirmed its position opposing the establishment of community ambulatory clinics for the withdrawal of narcotics from addicts and the continuing maintenance of addicts on narcotics.

"The Bureau of Narcotics also supports the five measures set out in the last paragraph of the statement of the American Medical Association and the National Research Council which will provide addicted persons with the best possible rehabilitative treatment programs and reduce, and if possible, eliminate narcotic drug addiction."

Bulletin Board

COMING MEETINGS

Symposium on Neurological Diseases—University of North Carolina School of Medicine, Chapel Hill, November 29-30.

Regional Meeting, American College of Physicians—University of North Carolina School of Medicine, Chapel Hill, December 6.

North Carolina Health Council, Annual Meeting—Sir Walter Hotel, Raleigh, December 11.

Watts Hospital Medical and Surgical Symposium—Jack Tar Hotel and Watts Hospital, Durham, January 25-26, 1963.

Conference of County Medical Society Officers and Committee Members—Carolina Hotel, Pinehurst, January 26, 1963.

Southeastern Sectional Meeting, American College of Surgeons—Queen Charlotte Hotel, Charlotte, February 11-13, 1963.

North Carolina Mental Health Association, Leadership Conference and Annual Meeting—Sir Walter Hotel, Raleigh, March 7-8, 1963.

Robeson County Ninth Annual Heart Symposium—Lumberton, March 13, 1963.

American Medical Women's Association, Annual Meeting—The Ambassador, Los Angeles, California, November 29.

Symposium on Cosmetic Aspects of Dermatology (AMA Committee on Cosmetics)—Chicago, December 4.

Southern Surgical Association Meeting—Boca Raton Hotel, Boca Raton, Florida, December 4-6.

Thirty-fourth Annual McGuire Lecture—Medical College of Virginia, Richmond, December 5.

Symposium on Malignant Disease—Medical College of Virginia, Richmond, December 6-7.

American Rheumatism Association, Interim Session—John Marshall Hotel, Richmond, Virginia, December 7-8.

Southeastern Surgical Congress—Americana Hotel, Miami Beach, Florida, March 18-21, 1963.

American Academy of General Practice Meeting—Chicago, March 29-April 5, 1963.

Gill Memorial Eye, Ear and Throat Hospital, Thirty-sixth Annual Spring Congress in Ophthalmology and Otolaryngology, April 1-5, 1963.

National League for Nursing, Sixth Annual Meeting—Atlantic City, New Jersey, May 13-17, 1963.

* * *

NEWS NOTES FROM THE DUKE UNIVERSITY MEDICAL CENTER

The American Cancer Society has awarded a research grant of \$8,419 to Duke University to support studies of the genetic mechanisms that control heredity.

Dr. Montrose J. Moses, associate professor of anatomy and a specialist in cytology (cell study) at the Duke Medical Center, is conducting the

research. The new grant brings to a total of \$28,234 the funds awarded by the American Cancer Society since March 1960 to support his work.

Using the electron microscope as his principal scientific tool, Dr. Moses hopes to learn more about the role of DNA (deoxyribonucleic acid) molecules in storing and transmitting genetic "information" that enables cells to reproduce themselves identically.

Dr. Moses has been a Duke faculty member since 1959. Earlier, he was associated with the Rockefeller Institute and the Brookhaven National Laboratory, Upton, New York.

* * *

A biochemical "steam shovel" that helps produce fat in body cells by moving molecules of carbon dioxide has been discovered at the Duke University Medical Center. The finding completes a four-year piece of detective work in the world of basic research.

In 1958, Duke biochemist Salih J. Wakil demonstrated for the first time that biotin—one of the B-complex vitamins—is involved in the synthesis of fatty acids, which in turn are important components of fat. Since that time, researchers have been trying to find out in chemical terms exactly how biotin does its work. The "steam shovel" mechanism, heretofore a missing link in the understanding of this chemical chain of events, was discovered by Moseley Waite, a Ph.D. candidate in biochemistry at Duke, working under Dr. Wakil's direction.

The research was supported financially by grants from the National Institutes of Health. The Central Carolina Farmers Exchange, Durham, contributed chicken livers used in the experimental work.

Dr. Wakil is an associate professor in the Duke Medical Center's biochemistry department. Born in Iraq, he received his Ph.D. degree from the University of Washington in Seattle and taught at the University of Wisconsin before joining the Duke faculty in 1959.

* * *

A Duke University surgeon, recently back from Moscow, reports that Russia has made "impressive strides" in the development of medical scientific equipment but that hospital patient care leaves much to be desired.

Dr. W. W. Shingleton, a program participant in the Eighth International Cancer Congress in Moscow, bases these conclusions on talks with Soviet physicians and observation in Moscow hospitals.

He said in an interview here that the Russian surgeons he met impressed him as "friendly, intelligent, and interested in all aspects of medicine in the United States." Patient care, however appears to lack emphasis on individual doctor-patient relationships, he stated.

Dr. Shingleton said that Russian medical training institutes are graduating some 16,000 phy-

sicians annually—about twice as many as medical schools in the United States turn out each year. Three-fourths of the Russian medical graduates are women.

Russia is just now catching up with this country in terms of the doctor-population ratio (about one physician to every 650 persons), he pointed out, and if this rate is maintained, will pass the United States during the next few years.

Dr. Shingleton's role in the Cancer Congress was concerned with reporting on progress at Duke in the development of special surgical procedures for use in chemical treatment of cancer.

Other Duke scientists attending the Congress were Dr. and Mrs. Joseph W. Beard of the Medical Center's virus-cancer laboratory and Dr. John Laszlo of the Department of Medicine. Total attendance numbered some 4,500 cancer experts from 68 countries.

NEWS NOTES FROM THE BOWMAN GRAY SCHOOL OF MEDICINE OF WAKE FOREST COLLEGE

The Department of Physiology and Pharmacology at the Bowman Gray School of Medicine has declared nuclear war—on disease. The battleground—a new, two-room radioisotope laboratory which is being established on the third floor of the medical school. When completed, the laboratory will contain \$17,000 worth of equipment which will increase the efficiency of the department's research and training programs. The equipment is being purchased with funds from a grant recently awarded to the department by the National Institutes of Health.

Similar laboratories already are in operation in the Departments of Radiology and Biochemistry, but distance between departments and overburdened laboratory schedules make the equipment virtually inaccessible to the Department of Physiology and Pharmacology.

The establishment of the new laboratory on a departmental basis will enable the investigators of physiologic and pharmacologic research to explore areas that heretofore have been blocked off by limited facilities. It also will make possible the training of undergraduate and graduate students in research methods of the future.

At present, eight faculty members in the department are conducting research projects which will be facilitated by the advanced equipment. They are Dr. Harold D. Green, professor and department chairman; Dr. J. Maxwell Little, professor and head of the pharmacological section; Dr. Carlos E. Rapela, associate professor; Dr. Merrill P. Spencer, associate professor; Dr. Charles D. Hendley, associate professor; Dr. Herman E. Schmid Jr., assistant professor; Dr. Ivan W. F. Davidson, assistant professor; and Dr. Leonard A. Graham, instructor.

Much of their work is related to the study of heart, kidney and circulatory problems. The

equipment also will be used for cancer and neuropharmacologic research.

* * *

Dr. James B. Thomas, instructor in anatomy, has launched a three-year study of how viruses cause congenital deformities.

Many congenital malformations are believed to be caused by virus infections contracted by the mother during pregnancy. Just how the viruses work to cause the deformities is still unknown to medical scientists.

Dr. Thomas' research will deal principally with the chemical mechanisms involved in virus-caused malformations. His investigation is being sponsored by a \$27,000 research grant from the National Institutes of Health.

* * *

Dr. Harry M. Carpenter, assistant professor of pathology, presented a paper on the system he has devised for the storage and retrieval of pathologic data at a meeting of the American Society of Clinical Pathologists in Chicago, Illinois. Another paper, prepared by Dr. Carpenter and Mason Wilkins, senior medical student, on "Autopsy Bacteriology—a Review of 2,000 Cases" was read at the meeting by Wilkins.

* * *

The Frederick R. Taylor History of Medicine Society paid tribute to its founder Sept. 26 in a meeting at the medical school. Speakers for the program were Dr. William A. Wolff, assistant professor of biochemistry, ". . . As a Student"; Dr. Wingate Johnson, professor emeritus of clinical medicine, ". . . As a Colleague and Medical Author"; and Dr. John McLeod Jr., assistant resident in pathology, ". . . As a Teacher." The late Dr. Taylor, former professor of medical literature at the Bowman Gray School of Medicine, established the History of Medicine Society in the spring of 1955. He died November 1, 1955.

* * *

Ben D. Morton Jr., medical photographer at the Bowman Gray School of Medicine, has received a first-place award for color photomicrography from the Biological Photographers Association. His print of *Aspergillus*, which was magnified 480 times, was adjudged the outstanding color entry in the photomicrography division at the BPA's annual salon exhibit in Berkeley, California. More than 200 biological photographs were entered in the four divisions of the contest.

* * *

North Carolina Baptist Hospital has purchased Kembley Inn, an 82-unit motel, to use as a dormitory for students in the paramedical schools of the hospital and the Bowman Gray School of Medicine.

Each of the 82 units will accommodate two students or hospital employees. Student nurses will continue to reside in Twin Castles Apartments, which were purchased from a Charlotte realty firm in 1959.

The North Carolina Baptist Hospital is the recipient of a \$180,540 research grant from the John A. Hartford Foundation. The grant will be used for the continuation of research into the cause and prevention of kidney stones. Dr. William H. Boyce, professor of urology, is director of the research program.

NEWS NOTES FROM THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE

A series of 24 weekly two-way radio medical conferences between hospitals throughout the state and the University of North Carolina School of Medicine began October 16.

Ten medical groups in the state are participating.

Lectures by medical specialists will be broadcast each week by WUNC-FM (91.5 megacycles) from studios in the Medical School. Each program runs from 1:00 to 2:00 p.m., the first half consisting of a lecture and the second half of questions by physicians at the local points and answers from the Medical School.

The program is made possible through a grant from Merck Sharp and Dohme Postgraduate Program and is sponsored by the Department of Continuation Education in the UNC School of Medicine.

* * *

New faculty promotions and resignations from the U.N.C. medical faculty were announced recently by Chancellor William B. Aycock, following approval by the president and the trustees' executive committee.

Dr. David R. Hawkins was promoted to the rank of professor in the Department of Psychiatry. Dr. Thomas E. Curtis was promoted to associate professor of psychiatry.

Resignations from the medical faculty include: Drs. David W. Abse, Gordon E. Rader, and Ralph L. Dunlap, Department of Psychiatry; and Dr. Kerr L. White, Department of Medicine.

* * *

A series of lectures under the heading of "The Immune Response" began September 29 at the University of North Carolina School of Medicine and will run through December 8.

The ten lectures, given each Saturday at 11:00 a.m. in the Clinic Auditorium of Memorial Hospital, are sponsored by the U.N.C. School of Medicine and Medical Education for National Defense.

Medical faculty and hospital staff members, students of medicine, and all others interested in the field are invited to attend.

* * *

A Career Research Award "for lifetime support of research" has been granted to Dr. Judson J. Van Wyk, research professor of pediatrics at the University of North Carolina School of Medicine.

The Career Award is among the first made by the National Institutes of Health, to provide stable support for established investigators in various schools of medicine. The initial award is for a five year period, but is renewable during the lifetime of the recipient.

Dr. Van Wyk has headed the division of endocrinology in the Department of Pediatrics at Chapel Hill since 1955. Recently he and his associates have been engaged in studies to determine the cause of simple goiter.

* * *

Dr. Erle E. Peacock, Jr., associate professor of surgery at UNC, delivered the annual Whitehead Lecture to entering students at the University of North Carolina School of Medicine, Thursday, September 20.

* * *

The sixth annual University of North Carolina School of Medicine Symposium will be held here Thursday and Friday, November 29 and 30 with physicians from throughout the state attending along with doctors from Virginia and South Carolina.

This year's symposium will feature workshops in neurology and panel discussions of selected neurological cases. The visiting speaker will be Dr. H. Houston Merritt, College of Physicians and Surgeons, Columbia University.

AMERICAN COLLEGE OF SURGEONS

Southeastern Sectional Meeting

Management of multiple injuries during the first six hours, airplane accidents, the single unit transfusion, colorectal surgery, electrolytes, steroids, anticoagulants, and antibiotics will be among subjects discussed at the three-day Sectional Meeting of the American College of Surgeons to be held in Charlotte, North Carolina, February 11-13.

Dr. Paul W. Sanger of Charlotte is chairman of the committee on local arrangements. Out-of-state guest speakers include Rudolf J. Noer, Louisville; John C. Burch, Nashville; Langdon Parsons, Boston; Alton Ochsner, New Orleans; Denton Cooley, Houston; Frank B. Berry, Washington, D. C. All doctors of medicine are invited. Sessions will be held at the Queen Charlotte Hotel.

* * *

On October 18 approximately 1100 surgeons were inducted as new Fellows of the American College of Surgeons during the annual Clinical Congress of the world's largest organization of surgeons.

Fellowship in the College is awarded to doctors who fulfill comprehensive requirements for acceptable medical education and advanced training as specialists in one or another of the branches of surgery, and who give evidence of good moral character and ethical practice.

Those receiving this distinction from North Carolina at the 1962 Convocation are as follows: V. Birch Rambo, Banner Elk; George W. Cheek, Jr., and Charles L. Saunders, Jr., Burlington; George Johnson, Jr., Chapel Hill; James B. Raymer and John R. Pender III, Charlotte; Blaine S. Nashold, Jr., Durham; Robert T. Schorr, Elizabeth City; James T. McCrae, Elkin;

Also, William B. Hall, Fayetteville; Major Maurice S. Berbary, MC USA; Loy C. Smith, Fuquay Springs; Simeon H. Adams, Gastonia; Kenneth G. Bartels, Hendersonville; Robert A. Keppel, Hickory; Francis W. Slate, Mocksville; Richard D. Jackson, Mount Airy; Robert W. Love, Jr., Oteen; Tolbert L. Stallings, Raleigh; Cullen Hall and Edward B. McKenzie, Salisbury; John S. Bradshaw, Tryon; Charles D. Edwards, Washington; David P. Thomas, Wilmington; Captain William C. Turville, MC USN.

NEW MEMBERS OF THE STATE SOCIETY

The following physicians joined the Medical Society of the State of North Carolina during the month of September.

Drs. Eldene Arne Smith, Box 1360, Candler; Barry Reeves Pate, Flat Iron Building, Asheville; Arthur Theodore Hill, Jr., 86 Victoria Road, Asheville; James Marshall Sloan, III, 942 Tunnel

Road, Asheville; Alexander Maitland, III, 309 Doctors Building, Asheville; Robert Bruce Tannehill, 720 Grove Street, Salisbury; James Edward Cranford, Dorothea Dix Hospital, Raleigh.

Also Drs. William Weston Hedrick, 3211 N. Boulevard, Raleigh; James Hugh Segars, 354 S. Mulberry Street, Lenoir; Hugh Erskine Fraser, Jr., Qts. L, Naval Hospital, Camp Lejeune; Benjamin Hubbard Caldwell, Jr., 518 Sioux Drive, Jacksonville; Leonidas Polk Williams, Jr., Hayes Farms, Edenton; John Hargett Thompson, Box 175, Trenton.

STUDENT AMERICAN MEDICAL ASSOCIATION

A pilot program for international medical student exchange has been announced by James A. Brooks, president of the Student American Medical Association, and a senior at the University of Oregon Medical School. Details of the initial exchange set for the summer of 1963 will be announced following Mr. Brooks' return from the eleventh General Assembly of the International Federation of Medical Student Associations.

The extension of SAMA's efforts in international medical education has been greatly aided by a three-year grant of \$15,000 from the Smith Kline and French Foundation of Philadelphia.

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AMERICAN MEDICAL WRITER'S ASSOCIATION

Five medical publications were cited in Washington last month by the American Medical Writers' Association for "distinguished service in medical journalism to the medical profession."

The journals honored at the nineteenth annual meeting of the AMWA were **Archives of Internal Medicine**, published by the American Medical Association, as outstanding in the category of specialty and research journals; the **Bulletin of San Diego County Medical Society** as the best in its category; and "Medical Science" was cited as best among many "controlled circulation" journals distributed without subscription charge to the medical profession; the **New England Journal of Medicine** as the "best national or regional general medical journal in 1962"; the **New York State Journal of Medicine** as the "outstanding medical journal for 1962."

Dr. Richard H. Orr, AMWA President, presided at the Annual Dinner at which the awards were presented.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

The Association of American Medical Colleges has announced that it will accept applications from medical students for grants which will enable them to broaden their medical knowledge

and know-how by serving at remote medical stations in the countries of Africa, Asia, and Latin America.

For the fourth year Smith Kline & French Foreign Fellowships for Medical Students are being offered to junior and senior students in U. S. medical schools. Descriptive brochures and application forms for the 1963 program have been mailed to all deans, said Dr. Ward Darley, executive director of the Association.

The closing date for filing applications is December 31, 1962.

For further information, write to the Association headquarters at 2530 Ridge Avenue, Evanston, Illinois.

PHARMACEUTICAL MANUFACTURERS ASSOCIATION

Over \$210,000 worth of drugs was contributed by member firms of the Pharmaceutical Manufacturers Association for victims of September's disastrous earthquake in Iran.

The drugs, consisting of a variety of antibiotics, sedatives, antiseptics, and vitamins, were donated in response to an emergency appeal from the American Red Cross on Labor Day. More than 7,500 were reported dead and 60,000 to 70,000 were left homeless in the wake of the disaster.

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Book Reviews

Financing Medical Care: An Appraisal of Foreign Medical Programs. Edited by Helmut Schoeck. 314 pages. Price, \$5.50. Caldwell, Ohio: The Caxton Printers, Ltd., 1962.

Dr. Helmut Schoeck, who edited this book, was born in Austria and was a student in the universities of Munich and Tübingen, graduating with a Ph.D. in sociology and psychology. He came to this country after World War II and is now professor of sociology at Emory University. He certainly should know whereof he speaks when he says in his introduction that the "history and performance of compulsory health plans in other countries, as well as the absence of major health problems in countries without national compulsory schemes, hardly suggest that this antiquated approach to medical care is the wave of the future."

Sixteen contributors—including Dr. Schoeck—give their first-hand observations on medical care in Britain, France, Germany, Austria, Sweden, Switzerland, and Australia. The contributors include journalists, sociologists, political scientists, medical men, and a priest—all of whom criticize compulsory insurance and commend the free enterprise system of Switzerland, Finland, and Australia.

It is a pity that our President did not—or would not—read the book before he bemoaned our country's lagging behind Europe in its system of financing medical care. A few quotations will serve to illustrate what he might have learned:

From a journalist in Great Britain:

"I have discussed the Service with doctors in different parts of the country and on one point they were unanimous. They complained that their waiting rooms were⁶ packed with form fillers, people bringing forms to be signed, hypochondriacs, neurotics, the lonely and the bored. Among these are those in need of leisurely examination which cannot be given."

From a urologist in France:

"... state regulation of medical care ... severely restricts the French physician from performing his traditional services of healer, consoler, and confidant to the patient. Essential to this highly personal doctor-patient relationship are four freedoms: (1) freedom of the patient to select the physician of his choice, (2) freedom of the physician to keep his professional code of ethics by safeguarding the confidences of his patients, (3) freedom of the physician to prescribe according to his own, and not the state's discretion, and (4) freedom of physician and patient to make direct agreements about fees and how they are paid.

From Dr. Schoeck of Germany:

"The patient ... knows only that on the average he has to work one month every year just to earn the social security tax for the health plan."

From a hematologist:

"Our elaborate social security system is responsible for an entirely new disease: the pension neurosis"

From a gynecologist and a pediatrician:

"For the politician seeking to enlist the allegiance of another population group as permanent clients, it hardly matters whether he begins with the aged or the young."

From an internist:

"An ominous new alliance between politicians and ambitious health officials has been formed—as was inevitable.

From an economist in Sweden:

"The socialists considered compulsory participation in a health insurance plan a logical step toward a total welfare state ... During the first three years of the compulsory system the number of people reporting an illness with corresponding claim for sick pay rose 25 per cent ... Today social welfare benefits amount to 37 per cent of all current government expenditures. Tax pressure has increased tremendously. Today, taxes at various levels of government drain off 34 per cent of the net national product."

A final quotation from Sir Earle Page, formerly Australia's Minister of Health, is really the conclusion of the whole matter:

"The high standards of medical care which have characterized the United States for the past four or five decades were not achieved under a governmental system of direction and control. In my opinion, they could not be sustained or advanced under such a system."

As Dr. Schoeck says in the preface, "this is the first book to provide an inside look at various systems of compulsory health insurance." It can be commended to all who want to know the facts about this widely discussed subject.

For Parents Only: The Doctor Discusses Discipline. By Frank Howard Richardson, M.D., F.A.A.P., F.A.C.P. 116 pages. Price, \$2.95. New York: David McKay Company, Inc., 1962.

This little book is written in Dr. Richardson's chatty, informal style which makes such easy reading that it is hard to realize how much ground is covered. The first chapters are devoted to dealing with the child in the home. Dr. Richardson stresses the importance of example rather than precept; of respecting the child's personality; and of letting the child make his own decisions as soon as he shows he is mature enough.

Although most of the book is devoted to what might be called the atmosphere of the home, the author gives good advice about the child's eating and sleeping habits, about school problems, adolescence, and adjustments to college. He very plainly condemns the custom of "keeping up with the Joneses" by providing high school and college students with automobiles. He makes another good point in discouraging a father from trying to force a mechanically minded son into his own profession. Finally, he discusses fairly and sensibly the age-old conflict between mothers and grandmothers—"the three-generation problem."

This reviewer—perhaps influenced by Admiral Rickover—would like to dissent from the author's statement that "progressive education is not the cause of our present-day delinquency." Certainly no one would claim that it is the sole cause; but many believe, with Admiral Rickover, that it is one of the contributory causes. (Incidentally, it is to be hoped that Admiral Rickover's book, "Education and Freedom," will get the wide reading that it deserves.)

This last book of Dr. Richardson's is one of the very best he has written. It can be commended without reservation to all parents who seek guidance in bringing up their children.

The Month in Washington

Influenced strongly by the thalidomide incident, Congress approved legislation giving the Food and Drug Administration more control over the prescription drug industry.

The Kennedy Administration and Senator Estes Kefauver (D., Tenn.), chief sponsor of ethical drug legislation, successfully exploited the thalidomide incident after prospects of passage of a strong drug bill waned.

However, they were unable to get all they wanted in the legislation even with the impact on Congress of the widespread publicity about the clinical testing of thalidomide in this country coupled with reports from Europe of births of malformed children by women who had taken the drug during pregnancy.

One Administration proposal rejected by Congress would have given the Secretary of Health, Education and Welfare authority to require physicians to report directly

to him on their clinical tests with new drugs.

The new law empowers the FDA to require "substantial evidence" of the efficacy, as well as safety, of new drugs before licensing them for marketing. The AMA had warned Congress that this might lead to a test of relative efficacy which could result in potentially-helpful drugs being barred from sale. The AMA contended that the old FDA requirement that a drug live up to its label claims was a sufficient test of effectiveness.

The Pharmaceutical Manufacturers Association also warned that drug research might slow down as a result of the new law.

"Some provisions of the new law may not be helpful to the public," the PMA said. "In fact, unless there is the wisest administration of the law harm can be done. For example, medical research may slow down and the costs of medications may increase."

Physicians will be required to get the consent of the patient, or a close relative, for treatment with experimental drugs except in instances where the physician feels that it would not be feasible or would be contrary to his professional judgment. Consent already is a part of the code of ethics of the American Medical Association.

Some other major provisions of the new law:—

—Authorize the FDA to swiftly suspend any drug which it suspects is dangerous.

—Require that the generic name of a drug be printed on the label in type half as large as that for the trade name.

—Extends the time during which FDA may review a new drug application before it must be approved or disapproved.

—Authorizes the HEW Secretary to establish generic names for new drugs.

—Authorizes the HEW Secretary to prevent testing of drugs on humans if he determines there has not been sufficient pre-clinical testing.

—Require batch certification of all antibiotics.

Congress passed a bill authorizing a \$36 million three-year program for federal aid for intensive vaccination programs against polio, diphtheria, whooping cough, and tetanus.

The vaccination campaigns are to be aimed primarily at children less than five years old. The U. S. Surgeon General was given broad authority in deciding the amount and terms of federal grants under the program.

Grants will be made to states or, when approved by state officials, to cities or other local governmental units.

Also on the immunization front, a Special Advisory Committee twice recommended to the Public Health Service that Type III oral polio vaccinations be continued for pre-school and school age children but not for adults for the time being.

The Public Health Service accepted the recommendation and urged that communities proceed with planned mass vaccination campaigns using Type III for children. But some communities decided to hold up their mass immunization programs at least temporarily or to suspend Type III doses for children, as well as adults.

After an October 2 meeting, Dr. Luther L. Terry, Surgeon General of the PHS, said:

"The recommendation that Type III be confined to children has raised the question of spread from vaccinated children to adults, especially family members. The evidence does not indicate a hazard to adults exposed in this way."

"The level of this risk can only be approximated but clearly is within range of less than one case per million doses. Since the (Type III) cases have been concentrated among adults the risk to this group is greater, whereas the risk to children is exceedingly slight or practically nonexistent."

President Kennedy signed into law H.R. 10 permitting physicians and other self-employed persons to take a Federal Income Tax deduction for private pension plans.

He signed the legislation less than six hours before the midnight October 10 deadline that he had to act on the measure. If he had not signed it by then, it would have become law without his signature.

Enactment of the legislation into law climaxed a 12-year battle in Congress. The House passed it twice, in 1958 and 1959, but it died each time in the Senate with adjournment.

This year the House passed it with a 361-0 vote. The Senate vote was 70 to 8.

The new law authorizes a self-employed individual, such as a physician, to contribute up to 10 per cent of his earned income or \$2,500, whichever is less, toward a retirement plan, provided he includes all of his employees with three or more years of service under the plan. A tax deduction of half of the contribution to the self-employed person's retirement plan would be allowed.

The contributions made on behalf of employees would be fully tax-deductible.

The measure prohibits drawing on the retirement funds without penalty before age 59½, except in case of disability or death.

In Memoriam

James Beebe Hawes, M.D.

Dr. James B. Hawes was born in Huntington, West Virginia on January 17, 1908. He died at his home in Washington on August 1, 1962.

He was graduated from the University of Virginia and received his M.D. from the same institution in 1932. His internship at the the University of Virginia Hospital was followed by a three-year residency at Logan General Hospital and the University of Vienna.

He practiced his specialty in Greenville, North Carolina, until he entered the U. S. Army in World War II and served as chief of the EENT service of the 315 Station Hospital in the European Theatre. Following his discharge from service he practiced his specialty in Washington, North Carolina, until his death. He was a faithful member of the Zion Episcopal Church, Chief of Staff of Beaufort County Hospital and a member of the Beaufort County Welfare Board. He was a member of the Pamlico-Albemarle Medical Society, Medical Society of the State of North Carolina, the A.M.A., and the North Carolina Society of EENT.

Dr. Hawes devoted himself to his work, to his family, and to his church. His skill and ability earned him a place of high regard among his fellow physicians and among the people in the eastern section of his state.

NORTH CAROLINA

Medical Journal



December, 1962
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Therapeutic Abortion in North Carolina

W. Joseph May, M.D.

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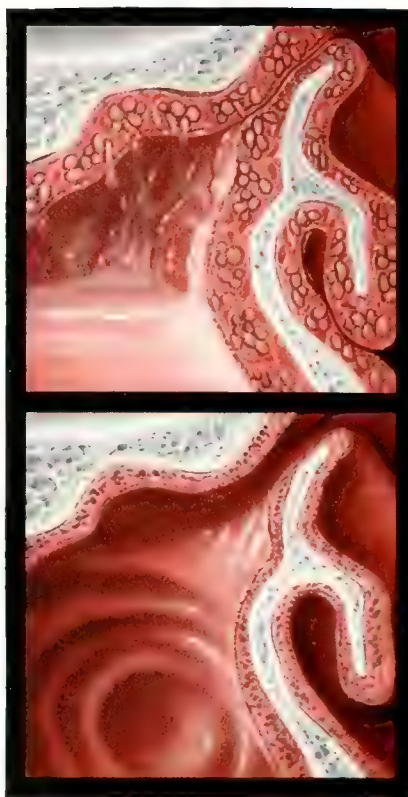
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Therapeutic Abortion in North Carolina

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WINSTON-SALEM

Introduction

Therapeutic abortion is defined as the termination of pregnancy prior to the period of viability for the purpose of saving the life of the mother or safeguarding her health, including her mental health or sanity¹. Since therapeutic abortion entails destroying the fetus, it is a grave undertaking and must never be considered unless the mother is in imminent danger of death, or great bodily or mental harm. The operation is governed by statute or common law in all states. The North Carolina Statute² states:

If any person shall willfully administer to any woman either pregnant or quick or prescribe for any such woman or advise or procure any such woman to take any medicine, drug or the substance whatever or shall use or employ any instrument or any means with intent thereby to destroy such child, unless the same shall be necessary to preserve the life of the mother, he shall be guilty of a felony and shall be imprisoned in the State's prison for not less than one year nor more than ten years and be fined at the discretion of the court.

It seems clear that this statute was devised as a deterrent to anyone with the evil intention of causing a pregnant woman to expel the products of conception for any reason. "... unless the same shall be necessary to preserve the life of the mother..." This would presuppose that life depends upon health and that health then is preserved in order to preserve life.

Medicine is a fluid science. There is, as a result, an everchanging list of abnormal con-

ditions for which abortion may be currently indicated. Some long recognized indications have virtually disappeared, while others are of increasing importance or being newly introduced. Within the last few years there has been some break-through in the understanding of teratogenesis associated with certain chemical agents, radiation, infectious disease processes, dietary deficiencies, and so forth^{3,4}. The recognition of the teratogenic nature of rubella made it one of the first infectious disease process to be associated with the production of congenital defects⁵. Because of the difficulty of dating the onset of pregnancy and the documentation of active infectious disease, most obstetricians have been reluctant to make any positive proclamation concerning the necessity of interrupting pregnancy where Rubella is suspected as a teratogenic agent.

The Finkbine case

The now famous "Mrs. Finkbine" case involving thalidomide as a teratogenic agent has brought the matter of therapeutic abortion for fetal indication sharply into focus again. Some people seeking liberalization of laws concerning therapeutic abortion have seized upon the publicity generated by the Finkbine case as a springboard for such a movement in North Carolina. The Wake County Medical Society has recommended changes in the North Carolina law to legalize abortion under such conditions. Some physicians, probably representing the majority, contend that there is no need for change in law; that the present law does not condemn good medical practice.

The Finkbine case involved a married

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woman who had taken thalidomide. She wanted a therapeutic abortion when she learned that the drug might result in a deformed baby. A panel of physicians, appointed by the Good Samaritan Hospital in Phoenix, approved the abortion on the grounds that the birth of a malformed child would cause the mother grievous mental and emotional harm. At the last minute, however, the hospital's administrator requested a ruling from the Maricopa County Medical Society. The Society then turned the matter over to the Arizona Superior Court, where the woman's plea was dismissed. The judge who wrote the decision pointed out that there was no legal controversy; that there was nothing in Arizona law to prohibit the abortion if the facts as presented were accurate. In plain language the judge threw the matter right back into the laps of the doctors. By this time so much publicity had been created that no medical people in this country cared to deal further with the case.

In the practice of obstetrics and gynecology it is known that welfare and social groups have publicly urged the broader use of legalized sterilization procedures on socioeconomic grounds. There are those who for similar reasons would like to broaden the indications for legalized abortion. Any law which would allow abortion for any reason other than a medical indication, when pregnancy is a hazard to the mother's life, would be undesirable. This is particularly true where the decision for abortion may be made by legal, social, or welfare groups outside the profession.

The proponents of legalized abortion speak of a world population explosion that will ultimately lead to famine. They cite the experience of Eastern Europe and Scandinavia, where legalized abortion has been practiced for several years. Interestingly enough, the motivation to legalize abortion in Eastern Europe does not seem to be connected with population explosion. It was rather designed to discourage illegal and criminal abortion⁶. As a matter of fact there has been no decrease in the livebirth rate, while the number of legal abortions has steadily increased. Thereby the total abor-

tions and births have both steadily increased⁶.

Deaths from Therapeutic Abortion

The operation of therapeutic abortion, whether done vaginally or by abdominal hysterotomy, is not without intrinsic danger. In considering the justification for therapeutic abortion in a given case, therefore, it must be indisputably clear that the risks involved in the continuation of the pregnancy are greater than the hazards of the procedure itself. Since the patient is ordinarily a sick woman with perhaps advanced cardiac or hypertensive disease, these operative hazards may be substantial. Indeed the mortality statistics in North Carolina support this fact. From 1956 to 1951, the period during which the first 1000 maternal deaths in North Carolina were accumulated, 482,267 livebirths occurred. Of these 1000 maternal deaths, 26 were due to therapeutic abortion. During the second 1000 maternal death survey, 1951 through 1956, there were 572,794 livebirths, and 10 deaths were ascribed to therapeutic abortion. With the increase in livebirths and the decrease in deaths from therapeutic abortion, one can assume that the indication for therapeutic abortion has become steadily less frequent. Another assumption is that in many instances therapeutic abortion is not an entirely benign procedure and may not be lifesaving to the mother.

Therapeutic Abortion at North Carolina Baptist Hospital

The experience at the North Carolina Baptist Hospital since 1945 indicates the occurrence of therapeutic abortion has gradually decreased as the birthrate has increased (table 1). A total of 76 therapeutic abortions were performed during this 17-year period, 1945 through 1961. There were 25,024 livebirths during this time, making an incidence of 1 abortion per 329 livebirths. It is significant that 82 per cent of the total therapeutic abortions performed at the North Carolina Baptist Hospital during this time were done during the first eight-year period. Only 14, or 18 per cent, have been performed during the past nine years.

Table 1
Therapeutic Abortions
North Carolina Baptist Hospital
1945 - 1961

Indications	No. Cases
Hypertensive vascular disease -----	23
Tuberculosis -----	15
Rheumatic heart disease -----	12
Psychiatric -----	8
Epilepsy -----	4
Renal disease -----	3
Maternal rubella -----	2
Mental deficiency -----	2
Other—1 each* -----	7
*Cancer of breast	
Otosclerosis	
Diabetes	
Rape	
Coronary artery disease	
Ulcerative colitis	
Congenital heart disease	
Total -----	76

The therapeutic abortions during this period from 1945 through 1961 have all been validated by the committee-type conference. The obstetric and gynecologic staff, usually with an internist, pediatric or surgical consultant, serves as the committee. In any case in which a majority of the consultants affirm the indication for therapeutic abortion, it is performed. In some instances there may be those who disagree, including the chairman of the department; however, a substantial majority vote has prevailed in every instance.

Advances in medical practice have eliminated tuberculosis, most cases of toxemia, and many cardiac and renal conditions as indications for therapeutic abortion. The changing attitude toward psychiatric conditions has entirely eliminated them as an indication for therapeutic abortion at North Carolina Baptist Hospital. There is presently considerable adjustment in the thinking of many concerning fetal indications, a matter far from being clarified medically. During the past six years the North Carolina Baptist Hospital records indicate that two therapeutic abortions were performed because of documented cases of maternal rubella during the first 12 weeks of pregnancy². Another was performed on a white woman who had been raped by a Negro (who was indicted for the crime), and one

on a mentally deficient mother. In our earlier experience several were also done for psychiatric reasons, but none during the past nine years. It is obvious that the law has not been a serious impediment to good medical judgment and practice concerning therapeutic abortion in our experience.

Good medical judgment has been acceptable without contest at law. The noted "Bourne case," which occurred in England in 1938⁸, is borrowed in this country as legal precedent for sane medical judgment for therapeutic abortion in cases of rape. This was a case of a 13 year old girl who was raped by three soldiers. Dr. Alex Bourne, who performed the abortion, presented his case to the court and was acquitted. The English court held that the law should preserve not only the woman's physical life but her emotional life as well.

The law in this country gives tacit approval to what is being judiciously done. It knows that the doctors make an honest effort to police their own profession. Most courts have held that if a physician procures an abortion he is entitled to the presumption of correct judgment and the belief that he acts in good faith; in other words, if the abortion is questioned, the state must prove that it was not therapeutic.

Current Attitudes⁹

Prohibitive: The Catholic Church looks upon therapeutic abortion as the taking of life—in short, murder. Therefore, it cannot be done for any reason, according to the adherents of this philosophy, for the preservation of either the mother's life or her health.

Liberal: The liberal, or permissive, attitude is one which sanctions any abortion performed in good faith and within the regulation of the law. If the law is liberal enough, the operation need not be necessarily therapeutic. The frequent corollary to this uncritical, unselective approach is that the obstetrician-gynecologist is the technician who performs the operation at the discretion of the patient or some third party. Advocates of the liberal attitude

would seek abortion for socioeconomic reasons.

Restrictive: A third, more conservative attitude is held by those who believe in therapeutic abortion for medical reasons. Most Protestant religious groups adhere to this restrictive view¹⁰. In general, they would designate an obstetrician as chairman of a staff committee as the responsible arbiter who must determine which patient should be aborted and which should not. Extensive consultation is required before therapeutic abortion is done.

The restrictive approach or discipline could properly be called a committee plan for validation of abortion, and seems to be a reasonable, workable solution to the problem of proper selection of cases. It can be established in any hospital by having the chief of the obstetric and gynecologic service act as a judge after proper consultation with selected advisers, or by having a standing committee of the staff share the burden of the decisions. A committee composed of an obstetrician-gynecologist as the chairman, with medical, psychiatric, pediatric, and surgical consultants would be desirable. Each case could then be submitted in advance to the committee for thorough study before it meets for final discussion.

A unanimous or majority vote for interruption of pregnancy should be required to validate a therapeutic abortion. Where the hospital staff is too small to form a committee, a committee from the county medical society might well function in this capacity. It has been the experience of hospitals which have instituted the committee plan that only cases requiring serious consideration for therapeutic abortion are presented by the staff, once it is understood that only bona fide medical indications will be considered.

Discussion

It is desirable to review the position of therapeutic abortion from time to time. By this very procedure the medical indications have been steadily reduced, including the virtual elimination of psychiatric indications. Fetal indications have recently been offered for consideration. It would not ap-

pear that there is sufficient knowledge on the subject of teratogenesis at this time to use it as a reason to broaden legal abortion in North Carolina.

Any law is more likely to be changed through compliance than by actual disregard. If compliance with the abortion law as it now stands proves that the law is unjust and results in hardships on society, it is most certain that it will be changed. To this point it would not appear that the law has served to hamper the execution of good medical judgment and practice. In instances where hospital administrators have dictated medical policy, the physicians have been subjected to pressure from outside the profession for solutions to medical problems. Mrs. Finkbine, for example, took her case to the television audience and press, which is an improper place for medical decisions to be made. An established, conscientious committee for validation of therapeutic abortion can alleviate the problems where hospital administrators may be asked for rulings on such matters.

The data presented here emphasize that therapeutic abortion is a hazardous operation in itself. It also points out that therapeutic abortion can be done within the spirit of the law as it stands. The law protects society against evil-doers. It likewise protects the medical profession from liberal thinkers and uniformed laity. To specify certain social indications for legal abortion is tantamount to legal license for the abortionists.

Summary

The North Carolina Abortion Law is stated.

2. The maternal mortality resulting from therapeutic abortion in the first and second 1000 maternal deaths in North Carolina is presented.

3. Experience with therapeutic abortion at the North Carolina Baptist Hospital from 1945 through 1961 is presented.

4. Current attitudes toward therapeutic abortion are discussed briefly.

5. A committee plan for validation of cases for therapeutic abortion is suggested.

Conclusions

1. The present abortion law in North Carolina has not impaired good medical judgment and practice, and serves to protect society and the medical profession. Therefore, a change in the abortion law is not needed and would create an atmosphere conducive to abuse. In particular, the statutes should not be altered in order to broaden the application of abortion for fetal indications.

2. The establishment of a committee plan for consultation and validation of all cases for therapeutic abortion in North Carolina would be a solution to the problems surrounding this procedure. The members of these committees should be a group of knowledgeable people within the various disciplines represented on these committees.

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Radioactive Iodine Therapy for Angina Pectoris

PALMER F. SHELBURNE, M.D.*

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and

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DURHAM

Management of the occasional patient with incapacitating angina pectoris who continues to have pain at rest or with minimal exertion, despite usual therapeutic measures, is one of the most difficult problems encountered by the physician. One adjunct to therapy which has been used for over 30 years in such patients is the production of hypothyroidism.

Although the exact mechanism by which thyroid hormones act is not known, it is well documented that in the hypothyroid condition there is a lower rate of body metabolism, decreased body temperature, decreased nervous irritability, and reduction in cardiac output commensurate with the

change in basal metabolism¹. Theoretically the patient whose coronary circulation is compromised should be more nearly compensated when he is hypothyroid because demands on the heart are less. Moreover, it was observed early in this century that hyperthyroid patients who presented primarily cardiac symptoms often improved promptly following thyroidectomy², and that occasional myxedema patients experienced anginal pain for the first time following administration of thyroid hormone³. This information led Blumgart and co-workers to recommend total thyroidectomy for a small group of patients who had congestive heart failure or angina pectoris⁴. Their initial results were promising, and data from several centers collected by Parsons and Pudke⁵ indicate that over 75 per cent of 133 patients with angina had significant improvement from total thyroidectomy. Although the mortality was only 3.75 per cent during the first postoperative week,

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other complications and the reluctance of physicians to submit such seriously ill patients to major surgery of a purely palliative nature caused the procedure to gain only limited acceptance.

The introduction of thiouracil and its derivatives in 1940 reawakened interest in suppression of thyroid for patients with angina pectoris⁶, but because of toxic drug reactions and the fact that hypothyroidism was produced with difficulty even by large doses of drugs, attempts at chemical ablation have largely been replaced by the use of radioactive iodine (I^{131}). This has proved to be an effective and relatively inexpensive method of reducing thyroid function, and its use in patients with angina pectoris has been described in several excellent reviews⁷⁻⁹. In recent years multiple small doses of I^{131} have often been administered in the hope that thyroid function might be suppressed gradually and that transient hyperthyroidism, which may occur following irradiation of the gland containing stored thyroglobulin, might be avoided⁸. The present report describes the clinical course of 29 patients suffering from angina pectoris treated at Duke Medical Center who, in contrast to other recent series, received a single large initial dose of I^{131} intended to produce suppression of thyroid function.

Selection of Patients

Between 1955 and July, 1961, 29 euthyroid patients with angina pectoris received I^{131} therapy at Duke Medical Center. Two patients were lost to follow-up, and the remaining 27 form the basis for this report (table 1). These 27 patients represent 2 per cent of the total group of patients having the anginal syndrome seen here during this period. Ages ranged from 33 to 64 years at the time of therapy; the average age was 53.5 years. Initial cardiac symptoms had developed on an average of seven years before therapy. All patients had severe incapacitating angina pectoris, which had been stable for three months before therapy and was unresponsive to conventional measures. Eleven patients had electrocardiographic changes diagnostic of previous myocardial infarction, 6 patients had angina decubitus,

6 had hypertension (diastolic pressure greater than 100 mm. Hg), 3 had diabetes mellitus, and 2 had intermittent claudication.

Method

Following examination and an initial period of observation, from 12 to 25 millicuries of I^{131} was administered. The dose was determined by the percent of uptake of a tracer dose of I^{131} at 24 hours and was calculated to give a suppressive effect, assuming the gland to be of normal size. The average dose was 20 millicuries.

In 6 patients the initial I^{131} uptake was so low that a therapeutic dose larger than 25 millicuries would have been required for suppression of function. These patients were judged to be euthyroid clinically, and in most instances the low uptake of I^{131} was due to iodides previously administered in expectorants or as contrast media for diagnostic tests (Telepaque or Hypaque). In 4 of these patients, 100 mg. of propylthiouracil was administered every eight hours for periods varying from one week to six months, to inhibit temporarily the incorporation of iodine into thyroid hormone. The drug was discontinued one week before therapy, and invariably a significant increase in I^{131} uptake occurred, permitting a reasonably small therapeutic dose.

Occasionally more than one period of treatment with propylthiouracil was necessary to obtain the desired rate of I^{131} uptake. In 2 cases, thyroid stimulating hormone (TSH)* was given: 5 units daily for three days in the first case, and 10 units daily for two days in the second. There was prompt increase in I^{131} uptake in each instance; however, the first patient experienced a severe exacerbation of anginal pain 24 hours after the third dose of TSH, and the second patient complained of slight tenderness and swelling of the thyroid associated with an increase in anginal pain beginning one week after the last dose of TSH and lasting one to two weeks. Since these symptoms appeared relatively soon after the administration of TSH, and since the increase in anginal pain which may follow I^{131} ther-

*Thytropar—Armour Products.

Response to Treatment With Radioactive Iodine														
Before Treatment				After Treatment										
Patient	Age at Onset (Years)	Age when Treated (Years)	PBI	I-131 Uptake %	Propyl-thiouracil	Cholesterol (mg./100 ml.)	Dosage I-131 (millicuries)	Group 1—Excellent						
								I-131 Uptake %	Cholesterol (mg./100 ml.)	PBI	Hypothyroid	Exogenous Thyroid	Present Status	Follow-up
W.A.P.	43	52	—	23	—	273	20	2.6	600	—	Yes	—	Dead	7 months
C.H.	47	54	—	15	—	211	20, 15	16	250	—	Yes	—	Living	37 months
E.T.P.	60	69	—	14	—	368	20, 15		108	1.2	No	—	Dead	25 months
C.M.S.	58	61	6.9	30	—	240	20	2.8	626	—	Yes	Yes	Living	34 months
H.P.S.	55	67	—	16	—	260	12	12	309	3.9	Yes	No	Living	30 months
W.C.H.	52	61	6	18	—	258	17, 12	18	188	—	Yes	No	Living	49 months
T.L.*	60	64		29	TSH	297	20		463	—	Yes	Yes	Living	65 months
W.A.L.	50	57	6.4	22	Yes	435	20	14	319	4.2	No	No	Living	14 months
W.V.M.	57	63	—	34	TSH	218	20		416	2.6	Yes	Yes	Dead	14 months
Group 2—Good														
R.S.	35	45	—	16	—	—	25	16	323	—	Yes	No	Living	25 months
E.T.Y.	50	64	—	18	—	—	25	—	438	5.9	Yes	No	Living	15 months
D.S.	33	38	—	19	Yes	400	20, 20	3	470	2.2	Yes	No	Dead	25 months
D.A.G.	40	51	—	24	—	586	15	—	750	3.9	Yes	No	Living	46 months
G.I.K.	58	59	—	19	—	247	20	—	442	—	Yes	Yes	Dead	21 months
I.E.S.	36	54	—	18	—	342	20	8	378	—	Yes	No	Living	43 months
R.B.	48	49	—	21	—	312	20	—	—	—	No	No	Living	32 months
R.C.P.	49	54	—	25	—	440	20	—	—	—	Yes	Yes	Living	75 months
I.E.B.	39	46	—	28	—	252	20, 15		—	—	Yes	Yes	Living	63 months
Group 3—Poor														
J.W.	20	33	—	18	No	230	20	6	416		No	No	Living	86 months
F.E.L.	36	41	5.3	23	No	318	20	—	—	—	—	—	Dead	8 days
L.W.	43	49	—	15	No	320	20	9	455	5	Yes	Yes	Dead	40 months
W.D.K.	45	46	—	19	—	273	20	7.3	—	—	No	No	Living	41 months
C.F.	48	50	—	23	—	349	22	—	—	—	—	—	Dead	20 days
M.T.R.	51	62	—	19	Yes	309	15	—	—	—	—	—	Dead	6 weeks
E.F.	53	62	—	15	—	455	20	—	—	—	—	—	Dead	58 days
G.L.C.	54	59	7.1	28	—	312	20	—	—	—	—	—	Dead	17 days
H.T.L.	54	56	—	22	—	181	20	3.5	382	3.5	Yes	—	Living	12 months

*Seen by observer other than the original.

apy characteristically occurs four to six weeks after therapy, it seemed likely that TSH was responsible. Recently two deaths have been reported following administration of 10 units of TSH daily for three days for diagnostic purposes in 2 patients later found to have coronary artery disease¹⁰.

This method of treatment was successful in producing improvement and/or definite clinical evidence of hypothyroidism in the majority of cases. Only 4 patients required a second dose. In one of these (HEB) the patient responded initially to I¹³¹ therapy and responded a second time after pain recurred three years later. The other 3 patients were treated again within three or four months after failure to respond adequately to the initial treatment. All 3 had marked relief of pain following the second treatment, and 2 of them manifested definite signs of myxedema at follow-up examination.

Results

All but 4 patients living two months after therapy were re-evaluated by the original observer. Two were seen by a member of the staff other than the original observer, and in two instances in which patients could not return, reports from the patient and his home physician were available. Average duration of follow-up is 32 months.

Responses of the patients were divided into three groups similar to those suggested by Blumgart⁷: (1) *Excellent*—if the pain disappeared or markedly improved, allowing considerably greater physical activity (9 patients, table 1); (2) *good*—if there was definite improvement in pain but little increase in the level of activity tolerated (9 patients); (3) *poor*—if there was doubtful improvement or no change in pain, or if it became worse (9 patients). When responses were judged good or excellent, there was usually an abrupt change in symptoms between three weeks and three months after therapy, although one patient reported immediate improvement in symptoms.

Clinically many of these patients were subdued and less tense on follow-up examination. Frequently they reported that pain was less severe, was of shorter duration,

and was more responsive to nitroglycerin. In 11 instances the number of nitroglycerin tablets required was reduced to less than half that necessary previously, and in 5 of these pain was reduced to approximately one episode per month.

One effect of treatment was the production of definite hypothyroidism. In order of frequency there were changes in texture of the skin and hair, decrease in physical stamina and mental alertness, increased sensitivity to cold, delayed reflex-relaxation phase, constipation, and hoarseness. Four patients who were followed for a period longer than six months failed to develop physical signs of hypothyroidism. Two of these are in the poor-response group and 2 are in the excellent-response group. Eighteen patients manifested three or more of the stigmata of hypothyroidism, and 9 patients had severe symptoms of this condition. At last report 7 patients have taken thyroid preparations to reduce the side effects of hypometabolism. The high incidence of physical changes of hypothyroidism, as well as laboratory data, testified to the effectiveness of the dose of radioactive iodine administered.

A review of the clinical history and laboratory data before and after therapy yielded no dependable criteria for the selection of those patients most likely to respond to therapy. As is seen in table 2, there is little difference in age (although patients in the excellent response group tended to be slightly older), serum cholesterol levels, or I¹³¹ uptake in the three groups. It was our clinical impression that patients with more obvious symptoms of anxiety and emotional tension were more likely to be helped. In addition, although the data in table 1 suggest reduction of body metabolism following therapy in each patient treated, the degree these laboratory values changed does not correspond with the amount of improvement. In this series of 27 patients who failed to improve after other accepted medical measures had been tried, two-thirds responded to treatment with I¹³¹. Of the remaining third who did not show improvement, 5 had died within two months of the time of treatment. This figure is approxi-

Table 2
Analysis of Cases by Clinical Group

Before Therapy					After Therapy							
Clinical Group	Number Patients	Age at Onset (Years)	Age when Treated (Years)	I-131 Uptake %	Cholesterol (mg./100 ml.)	Thiouracil or TSH	Initial Dose I-131 (millicuries)	I-131 Uptake %	Cholesterol (mg./100 ml.)	Living	On Thyroid	Follow-up in Months
Excellent response	9	53.5	61	22	285	3	19	10.7	398	6	3	37
Good response	9	43	51	21	369	1	20.5	9.0	467	6	3	39
Poor response	9	45	51	20	305	1	20	6.5	418	3	1	20
All patients	27	47.2	54.3	21	320	5	20	9.8	424	15	7	32
Patients not living	11	49	55	21	324	3	19.7					15
Patients who died within 2 months after therapy	5	48	55	22	349	1	19.4					1
Patients who died more than 2 months after therapy	6	49	55	21	304	2	20	5	498			27.5

mately the same as that reported by Blumgart and co-authors⁷, and by Corday and others⁸.

Complications of Therapy

1. *Hypometabolism*: The production of a degree of hypometabolism which can be comfortably tolerated and still produce relief of anginal pain is the goal of therapy. Most patients noted symptoms of hypothyroidism; but few, even those with severe myxedema, were greatly disturbed by them. These symptoms can be reduced by small doses of thyroid extract, often without increasing chest pain.

2. *Progression of atherosclerosis*: A second possible complication of this treatment, which has received considerable attention, is the rate of progression of the atherosclerotic process which may be accelerated in patients exhibiting hypothyroidism and secondarily elevated serum cholesterol levels. Early postmortem reports do not indicate a higher incidence of severe coronary atherosclerosis in patients dying of myxedema¹¹; and in a series of patients with rheumatic heart disease treated with I¹³¹ an average of 11 years before death, Blumgart¹² found no evidence that the coronary atherosclerosis was more advanced than would be expected in an average population of similar age. In contrast, other reports have emphasized the ease with which generalized atherosclerosis may be produced in myxedematous animals¹³, and Bartels and Bell¹⁴ found the incidence of coronary artery disease in patients with myxedema to be 10 times that of a group of diabetic patients of similar age. The use of I¹³¹ for severe angina would be a much less attractive form of therapy if it were proved that induced hypometabolism greatly accelerated the process of coronary atherosclerosis, but convincing evidence is lacking at the present time.

3. *Temporary hyperthyroidism*: Elevation of serum protein-bound iodine may occur one to two weeks after a single dose of I¹³¹ and will persist for an approximately equal period of time¹⁵. On careful follow-up examination as many as two thirds of patients treated with an ablative dose of I¹³¹

have been found to develop mild tenderness and swelling of the thyroid gland, which is sometimes associated with an exacerbation in anginal pain⁷. Swelling of the parotid gland¹⁶, and even hemorrhage into the thyroid, in patients on anticoagulant therapy have been observed¹⁷. On careful questioning only 3 of our patients reported an increase in anginal pain following therapy. Two of these received TSH followed by I¹³¹ and within 24 hours noted thyroid tenderness and more severe anginal pain. The third patient experienced prolonged pain at home, was hospitalized, and died 10 days after I¹³¹ had been administered. No record of thyroid tenderness was made in this instance.

These few experiences suggest that thyroid stimulation and transient hypermetabolism occurred infrequently in our series despite administration of a relatively large initial dose of I¹³¹. It is possible that this complication would have been recognized more frequently had it been possible to see these patients at weekly intervals after therapy, as was done in Blumgart's series⁷. Indeed, examination of the records of the 11 patients in this group who are now dead gives reason for concern that a period of hypermetabolism may have occurred more frequently and had more serious consequences than was suspected at the time.

Those patients who died did not differ greatly from other patients in the series with respect to age, cardiac symptomatology, and laboratory findings, as noted in table 2. Of 6 patients who died more than six months after therapy, the response was classified as excellent in 3, good in 2, and poor in 1. In these 6 patients there was nothing to suggest that I¹³¹ therapy might have been harmful.

Five patients, nearly half of those dead after two years' follow-up, died within six weeks of therapy. Four died suddenly at home, and the fifth, who is described above, experienced increasing chest pain and died 10 days after he was hospitalized near his home. The number of deaths per patient month was nearly 10 times as great during the first two months after I¹³¹ therapy as it

was during the next 30 months. The mortality during this first period is 18 per cent, in comparison with a mortality of only 8.7 per cent in 23 patients followed 4 to 18 months after total thyroidectomy for angina pectoris reported by Mixter and other¹⁸.

The evidence that some of these deaths may have been related to I¹³¹ is entirely circumstantial. However, Segal and co-workers¹⁶ reported a group of 65 patients who received a large initial dose of I¹³¹ (20 to 35 millicuries). Twelve patients were dead at the end of six months to five years' follow-up, and 8 of these died within three months of therapy. Four of the 8 had a history of either increasing chest pain or thyroid tenderness during the period immediately preceding death.

In patients treated with multiple small doses of I¹³¹, high mortality during the period immediately following therapy has not been observed. Our results tend to confirm the opinion expressed by others^{8,9}, that the safest method of treatment is the administration of an adequate total dose of I¹³¹ divided into small weekly allotments.

4. *Other complicating diseases:* In 3 patients with diabetes mellitus no change in diabetic regulation was necessary following I¹³¹ treatment. However, all 3 patients had very mild diabetes controlled mainly on diet alone. Two patients having intermittent claudication had no change in these symptoms following radioactive iodine therapy.

Summary

Twenty-seven patients with severe angina pectoris treated with a single ablative dose of I¹³¹ for induction of hypothyroidism are reviewed. One-third obtained striking relief of symptoms, one-third noted significant improvement, and one-third were not improved by therapy. Thus of selected patients suffering from intractable angina pectoris who have responded poorly to conventional medical measures, approximately two-thirds obtained significant relief from I¹³¹ therapy. It is therefore a valuable adjunct to the therapeutic armamentarium of the physician.

No clues for the detection of those pa-

tients who are most likely to respond to I¹³¹ therapy were uncovered. Complications were few. Review of the relatively large group of patients who died within two months after receiving I¹³¹, however, suggests that the incidence of induced hypermetabolism and deleterious cardiac stimulation may have been greater than was suspected from the history alone. Comparison of our results with those reported in other series indicates that this danger may be avoided by giving multiple small doses of I¹³¹.

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Progress in the Control of Poliomyelitis, Measles and Infectious Hepatitis

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In the report of the North Carolina State Board of Health to the Conjoint Session of 1962, it seems appropriate to discuss poliomyelitis, measles, and infectious hepatitis in view of the current progress made in control. Poliomyelitis, a dread disease of the present century and the latter portion of the nineteenth century, is now near control. With the agents at hand for immunization, eradication can be considered. Measles, appearing in epidemics every two to three years, ranks high in morbidity, affecting almost exclusively children of school and pre-school age. Until recently, no agent for active immunization was available. Experimental studies now in progress point the way to control of this disease. Infectious hepatitis, though known since ancient times, has only recently become a clinical and public health problem of great magnitude. Much remains to be learned of the clinical, laboratory, and epidemiologic aspects of this disease before control can be expected. It is anticipated that some of these aspects will be elucidated in the near future.

Poliomyelitis

Table 1 presents data relative to the incidence and paralytic status of poliomyelitis in North Carolina for the period 1955-1961. Prior to 1955, paralytic and nonparalytic cases were not distinguished or were incompletely distinguished. In 1955 an extensive poliomyelitis surveillance program was initiated in cooperation with the Communicable Disease Center. From that date information relative to immunization status, re-

sults of virus isolation studies, and paralytic status are complete.

By present-day standards, relatively large numbers of cases of paralytic disease were seen in 1955 and 1956. Two years of low incidence followed. In 1959, when a severe epidemic occurred, 270 paralytic cases were reported.

Table 1
Cases of Paralytic Poliomyelitis and Incidence per 100,000 Population
North Carolina, 1955-1961

Year	No. Cases	Rate per 100,000 pop.
1955	179	3.9
1956	179	3.9
1957	52	1.2
1958	37	0.8
1959	270	6.0
1960	64	1.4
1961	9	0.2

Several features of the 1959 outbreak are worthy of mention. The disease was not evenly distributed over the state, but occurred in rather sharply circumscribed, localized outbreaks. The incidence corresponded closely with failure to receive an adequate course of—or indeed any—Salk vaccine. In some areas the incidence was higher in the non-white population than in the white, a phenomenon observed for the first time and consistent with the lower incidence of adequate immunization. Three of four military installations reported outbreaks among personnel and their dependents. The two years that followed, 1960 and 1961, showed a sharp reduction in paralytic cases.

Last year only nine paralytic cases were reported—reflecting what is believed to be the lowest incidence of paralytic disease seen in North Carolina since poliomyelitis became a disease of importance.

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Table 2
Case Distribution of Paralytic Poliomyelitis
by Age and Salk
Vaccination Status
North Carolina, 1961

Age	Cases by Number of Doses of Vaccine					Total
	None	1	2	3	4	
0-4	3		2			5
5-9		1			1	2
10-14		1				1
15-19						
20+	1					1
Total	4	2	2		1	9

Table 2 shows the number of cases by age and vaccination status for 1961. Four of the patients received no vaccine, and 4 had received only one or two doses. As in prior experience, the largest number of patients seen were in the 0-4 year age range. National and state data indicate that this age group is among the most poorly immunized, while the school age group is among the best.

While certain irregular cyclic events affect the incidence of poliomyelitis, the great progress in control is largely attributable to the widespread use of Salk vaccine. Failure to achieve full immunization, especially in the 0-4 year group generally and in certain non-white groups, was reflected in the occurrence of cases in that age range. Seven years of usage of the Salk formalin-inactivated vaccine has amply demonstrated its effectiveness in control of this important disease. The merits of the vaccine, and its advantages and disadvantages, are well known, and therefore will not be discussed further.

With the announcements in the summer of 1961 that types I and II of Sabin oral live vaccine had been licensed for use, and the subsequent licensure of type III in spring of 1962, another important immunizing agent became available². This vaccine, its efficacy well demonstrated in the United States and abroad, offers certain advantages over the Salk vaccine. Large numbers of individuals can be easily immunized in the field, because syringes and needles are not required. This eliminates the need for many time-consuming procedures and for sterilization equipment. The vaccine is pleasant

to take. It is hoped that many who rejected Salk vaccine because of the necessity for injection will accept Sabin oral vaccine.

Protection against poliomyelitis for the specific type follows quickly the ingestion of oral vaccine. Since oral administration is believed to follow the natural route of infection, local immunity of the intestinal tract is achieved, preventing subsequent natural infections and transmission of the wild strains of poliomyelitis viruses to other individuals. The vaccine is low in price and far cheaper to administer. It remains to be determined whether it will produce life-long immunity, but this is a possibility. In the future both vaccines will have a useful part in the prevention of disease. The role of each remains to be determined.

Certainly, this is no time to abandon the Salk vaccine. It is rather the time to urge its vigorous use in order to reach those in the susceptible groups and to reinforce, when necessary, the immunization of those previously immunized. Fall, winter, and spring are the recommended seasons to use Sabin vaccine—times when little interference to infection may be anticipated from the other enteroviruses which might prevent the vaccine from "taking."

Present schedules require that type I oral poliomyelitis vaccine be given first, followed six weeks later by type III, and after another six weeks by type II. In this way protection to the three types of poliomyelitis virus can be achieved. When all in the susceptible age groups have been immunized by means of the Salk vaccine, or a sufficient number have received the Sabin vaccine to prevent circulation of wild strains of poliovirus, poliomyelitis may be expected to diminish further and perhaps disappear as an important clinical and public health problem.

Measles

Measles remains an important childhood disease. Approximately 90 per cent of our population have had measles before reaching the age of 12. Many physicians have accepted measles as a part of childhood, and regard it as a relatively mild disease, from which few sequelae may be expected.

That encephalitis and death did occur was known to all, but the picture of a mild disease dominated the thinking of many workers in the communicable disease field.

One to five thousand cases of measles are reported each year in North Carolina. This does not reflect the true number of cases, since many are not seen by physicians and therefore are not reported. One measure of the severity of the disease is shown in the death toll. Last year (1961) 23 individuals died of measles. Only one patient died of acute poliomyelitis.

Some protection against measles, once exposure was known to have occurred, has been available for several years. Gamma globulin, supplied to us through the generosity of the American Red Cross, has long been useful in modifying or preventing the disease. Active immunization became a possibility only after adaptation of measles virus to tissue culture. We must express our thanks to Drs. John F. Enders and T. C. Peebles for the isolation and cultivation of the agent³. The adaptation of the virus to chick cells and demonstration of attenuation made immunization trials possible^{4,5}. After appropriate study, the inoculation of attenuated virus was found to produce the antibody in a high proportion of previously antibody-negative individuals. Approximately 95 per cent of the children receiving a single dose of vaccine will demonstrate antibody. Field trials indicate a high degree of natural exposure.

The principal drawback to the use of this vaccine is that it produces clinical illness. A subcutaneous or intramuscular injection of the attenuated agent produces fever of about one to three days' duration in a high percentage of those inoculated⁶. About 45 per cent of these persons develop a pink, macular, non-pruritic, discrete rash, usually limited to the upper trunk, neck and face. While rash and fever are the two major signs following inoculation, a very few children display irritability, loss of appetite, cough, conjunctivitis, inflammation of the upper respiratory tree, and abdominal discomfort. The illness, however, is unusually mild. Most children are not sufficiently ill to require bed rest.

In an effort to avoid illness following inoculation, a number of approaches are being tried. One combines the use of gamma globulin—so effective in naturally occurring measles⁷—to prevent symptoms, and another involves the use of an alum-precipitated, concentrated, inactivated vaccine⁸. The scarcity and cost of gamma globulin may limit the usefulness of this approach. Some trials using formalin-inactivated vaccine indicate great promise. A third approach involves injection of killed vaccine, followed by inoculation of living vaccine in the expectation of producing a solid, long lasting immunity without significant clinical illness⁹.

There is now within grasp a measles vaccine promising control.

Infectious Hepatitis

Infectious hepatitis was made a reportable disease in North Carolina in 1952—about the same time as in the majority of states. Two epidemics have occurred, the first in 1953. This state and the nation are now in the midst of a second epidemic which began in 1960, continued to a high level in 1961, and in 1962 will perhaps equal or exceed the 1961 peak. While a considerable array of new data is being added to the epidemiologic studies of infectious hepatitis, much remains to be learned. This year two outbreaks traceable to oysters and clams were studied in this country¹⁰. Several small outbreaks related to contact with chimpanzees and woolly monkeys were reported¹¹.

In the majority of cases it is believed that the incidence of this disease is related to close person-to-person contact, with a high percentage of recognized cases occurring in school-age children. It occurs in preschool children, but is frequently mild and often without jaundice. Approximately 25 per cent of the cases being recorded in North Carolina are in adults and, like poliomyelitis in adults, tend to be severe.

Commonly, the incidence is highest in winter and late spring. In epidemic years, however, the incidence tends to be high throughout the year, and the decline ex-

pected during the summer months fails to materialize. Attack rates are about equal for both sexes, though males slightly outnumber females. It may be postulated from the excellent protection conferred by the use of gamma globulin, and the relatively low attack rate among adults, that most adults—that is, contributors to gamma globulin pools—are immune.

Data on the nature of the agent to date have been derived almost entirely from experiments in volunteers or epidemiologic observations. Some information previously referred to is of interest here—in particular, the frequency with which the disease was transferred this past year from chimpanzees and woolly monkeys to veterinarians and others associated with their care. It seems clear that these animals can serve as natural hosts for the virus. Tissue culture, so useful in the isolation of viruses, has to date proved unsuccessful, in the eyes of many observers, in bringing to light the virus of this disease, though from time to time reports in the literature indicate isolation of the agent.

A portion of the 1961 Annual Meeting of the Public Health Association was devoted to presentation of data concerning isolation of agents from cases of infectious hepatitis. As pointed out earlier, while an agent or agents may have been isolated, many observers believe that further study is required before acceptance of the data. Following the isolation of the agent and reproduction in tissue culture, it may be anticipated that a vaccine will be produced for a field trial and, if successful in disease prevention, will subsequently be used on a broad scale.

Data acquired from the use of gamma globulin would indicate that a vaccine which induces antibody formation would confer protection. Such a vaccine would be most important in control, since in this past year 2194 cases were reported in North Carolina, attesting to the epidemic level and the high morbidity associated with the disease, which, unlike most communicable diseases, produces long periods of disability. It has recently been reported in the press that progress is being made in growing liver

tissue culture. In previous efforts to cultivate liver tissue, the usual end result was connective tissue. If it is true that liver cells have been reproduced in regular cell lines, there is offered the hope that the virus can be grown therein. This would give us appropriate laboratory media for isolation of the agent and a direct approach towards accurate diagnosis, epidemiologic follow-up, and, above all, possibly production of a vaccine.

Summary

The three diseases, poliomyelitis, measles, and infectious hepatitis, have been reviewed in the light of recent developments in control. As has been noted, eradication of poliomyelitis is within our grasp. Coming within reach is the possibility of controlling measles and possibly eradicating it as well. In the case of infectious hepatitis we are much less advanced, but beginning steps are being made. It may be hoped that within the next decade sufficient information will be at hand to control the third of these important diseases.

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Immunization Study of First Grade Children in North Carolina, 1961-1962

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One purpose of this study was to evaluate the levels of immunity of first grade school children in North Carolina in order to determine the efficiency of existing immunization programs. A level of immunity was to be estimated by evaluating the records of inoculations that children have had and comparing them with accepted standards for adequate immunization. The second purpose was to determine the completeness of the school health records with regard to immunization.

Method of Study

The method was essentially simple. The schoolteacher, with the assistance of the public health nurse, completed forms provided by the State Board of Health. These forms included spaces for the dates of all inoculations for each of the following diseases: poliomyelitis, diphtheria, tetanus, pertussis, and smallpox. The data were taken from existing school health records in the schools. The forms were then returned to the State Board of Health via the local health departments for transference to IBM cards and tabulation.

According to the records of the Department of Education, 115,000 students entered the first grade in September, 1961, in the state of North Carolina. We have secured and tabulated the results of 112,098 student records. To our knowledge, we have not omitted any schools from this study. The discrepancy between 112,000 and 115,000 students is numerically insignificant. With

this fact in mind, we feel that the study represents a uniform cross section of children and reflects in general the results of existing immunization programs in this state.

Before attempting to analyze the results, we would like to discuss briefly the limitations of this study as we see them. Compilation of the data depended upon the following factors, which must be borne in mind in interpreting the results.

1. The presence of a school health record in the school for each child.
2. Adequate content of the record, which depended upon:
 - a. Reporting of records of immunization to the school by the parents, physicians, and health departments.
 - b. Recording of this data by the school health personnel.
3. Accurate and complete reporting of results on the survey forms by the teachers, which depended upon:
 - a. Having a survey form on which definitions correspond to the inclusions and definitions of entries.
 - b. Conscientious efforts by those completing the survey forms.
4. Interpretation of incomplete data may have resulted in slightly underestimating the actual extent of complete immunizations and the "earliness" of starting immunizations.

The cumulative effect of all these factors is included in the results. We might add at this point that we have secured other information which is not being presented here. It concerns the presence or absence of a physical examination prior to entrance to school and the source of the immunizations.

Read before the Section on Public Health, Medical Society of the State of North Carolina, Raleigh, May 7, 1962.

The North Carolina State Board of Health in cooperation with the North Carolina State Department of Public Instruction.



Fig. 1. Smallpox immunization: Distribution by number of injections.

Analysis of Results

Smallpox

Of 112,098 children reported, 17,361 (15.5 per cent) had no record of immunization. Of the balance, 86,124 (76.8 per cent) had one vaccination against smallpox recorded, and 8624 (7.7 per cent) had two or more recorded.

The analysis of these data on the basis of racial distribution demonstrates that 12.1 per cent of the white and 21.9 per cent of the nonwhite children reported had no history of vaccination. Further analysis shows that 18.3 per cent of the white as compared with 13.6 per cent of the nonwhite children were vaccinated in the first 18 months of life, leaving a total of 69.2 per cent of the white and 64.3 per cent of the nonwhite group who were immunized later than 18 months of age. Most of the latter group were immunized just prior to entering school. Twelve and five tenths per cent of the white and 22.1 per cent of the nonwhite children were vaccinated, but the dates were unknown.

Poliomyelitis

Analysis of the information reveals that 10,143 children (9.0 per cent of the total) had no record of immunization against this disease. Of those with records, 27,754 (24.7 per cent of the total) had one or two inoculations recorded; 35,158 (31.4 per cent) had three inoculations, leaving a total of 39,043,

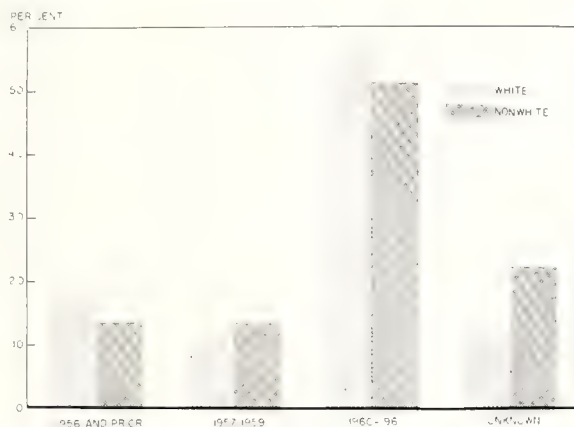


Fig. 2. Smallpox immunization: Distribution by date of first injection.

or 35 per cent, who had had four or more inoculations.

On the basis of racial distribution, 5151 (7.1 per cent) of the white and 4982 (12.7 per cent) of the nonwhite children had no record of immunization; 25.8 per cent of the white children and 22.8 per cent of the nonwhite children had had only one or two inoculations; 25.3 per cent of the white and 43.0 per cent of the nonwhite children had received three inoculations, leaving 41.7 per cent of the white and 21.4 per cent of the nonwhite children who had had four or more inoculations.

On the basis of age at time of immunization, 34.2 per cent of the white and 17.7 per cent of the nonwhite children had records of immunization dating prior to 18 months of age, leaving 44.1 per cent of the white and 64.9 per cent of the nonwhite

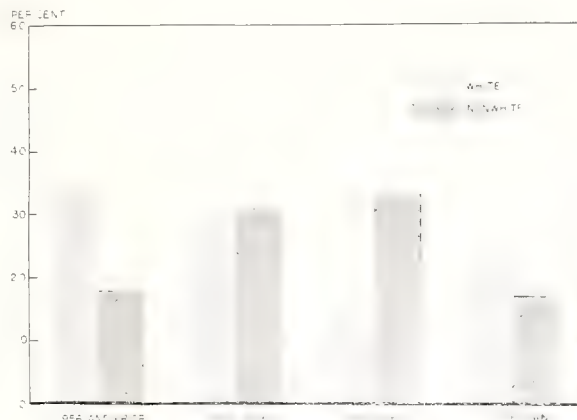


Fig. 3. Poliomyelitis immunization: Distribution by date of first injection.

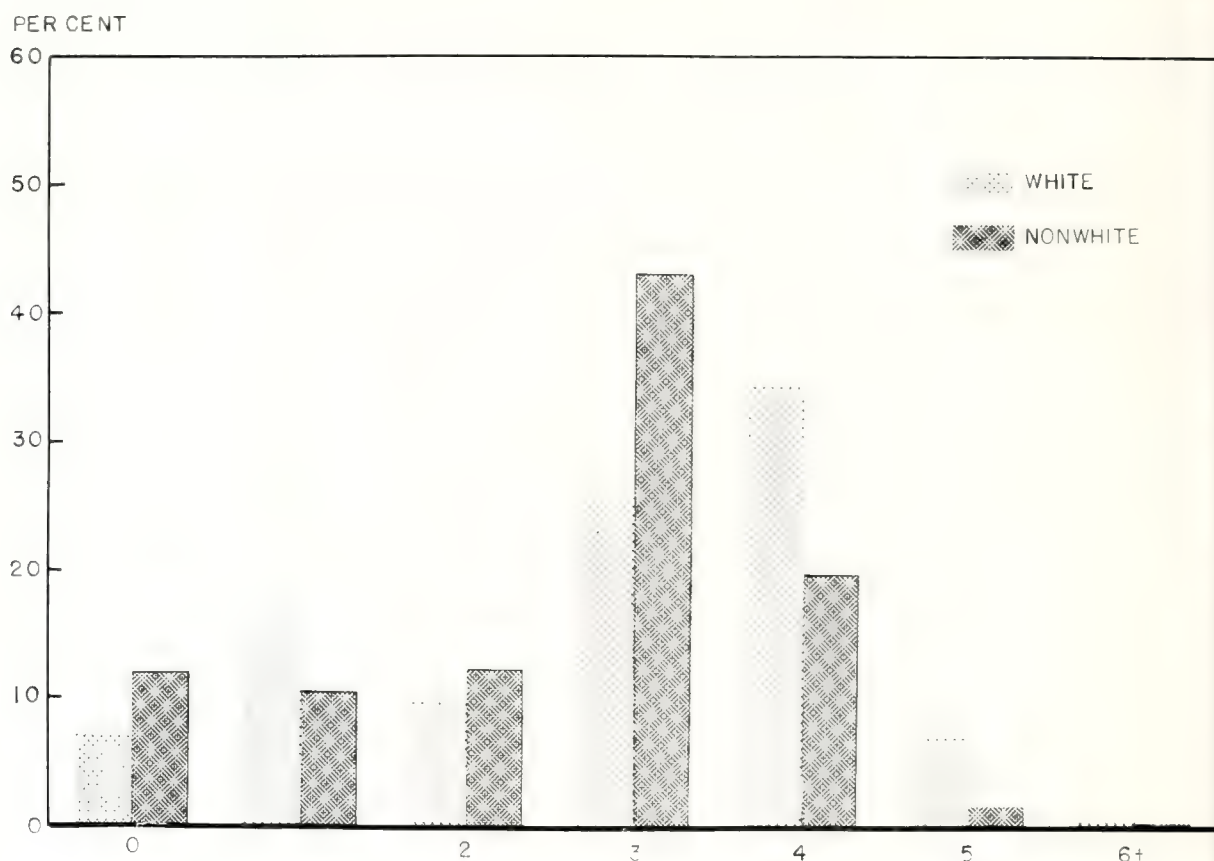


Fig. 4. Poliomylitis immunization: Distribution by number of injections.

children who had been immunized later than 18 months of age. The dates of immunization were not recorded in 21.8 per cent of the white and 17.5 per cent of the non-white children.

Diphtheria, pertussis, tetanus

Since it is standard practice to combine

the diphtheria, pertussis, and tetanus vaccines, and since these diseases are commonly associated in discussions of immunization programs for children, they will be considered as a group. The immunization pattern of these three diseases will be discussed on the basis of diphtheria, as no significant differences were found.

Eight thousand three hundred seventy-seven, or 7.5 per cent of the children, had no record of immunization against diphtheria: 32,187 (28.7 per cent) had had only one or two inoculations; 27,278 had had three, and 42,156 (39.4 per cent) had four or more.

Racial distribution: A total of 5.3 per cent of the white and 11.7 per cent of the non-

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Fig. 6. (Top) Diphtheria immunization: Distribution by number of injections.

Fig. 7. (Bottom) Pertussis immunization: Distribution by number of injections.

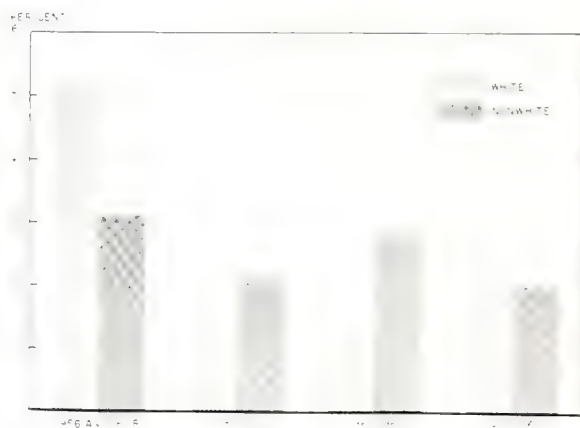
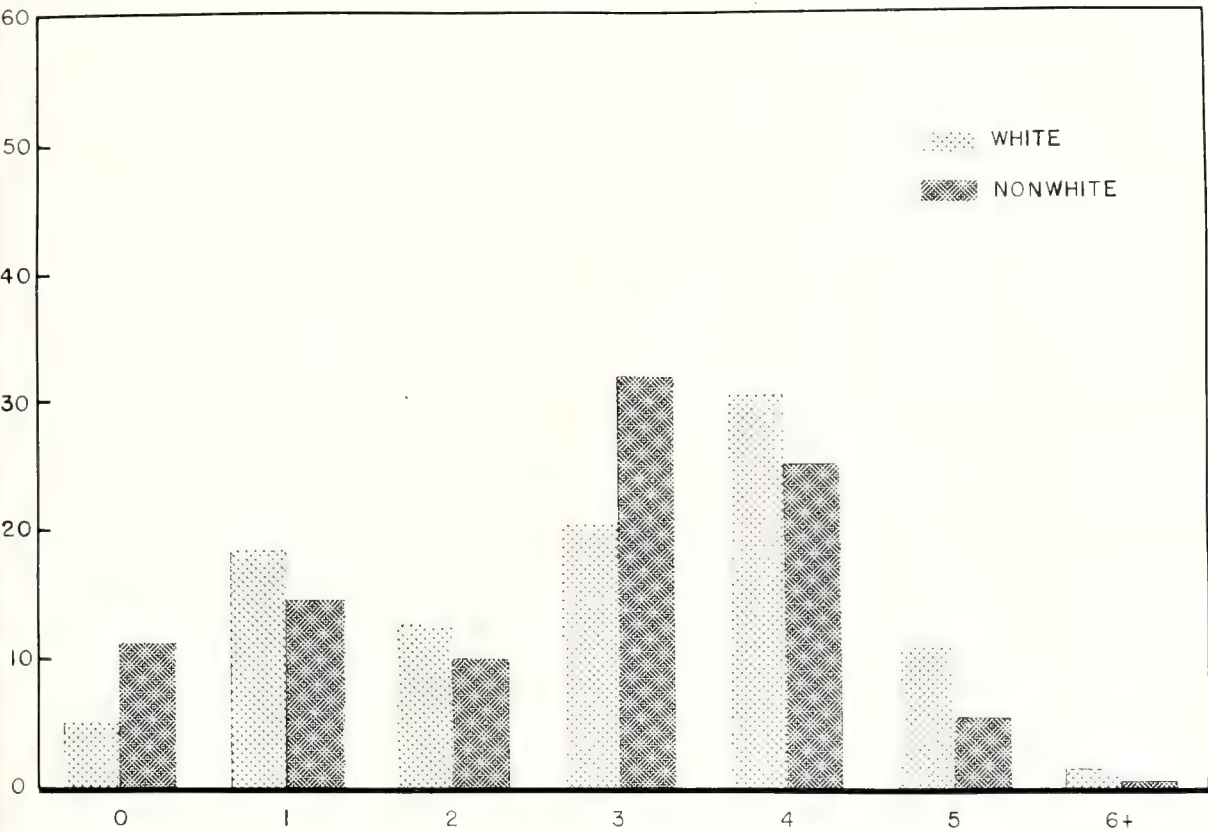
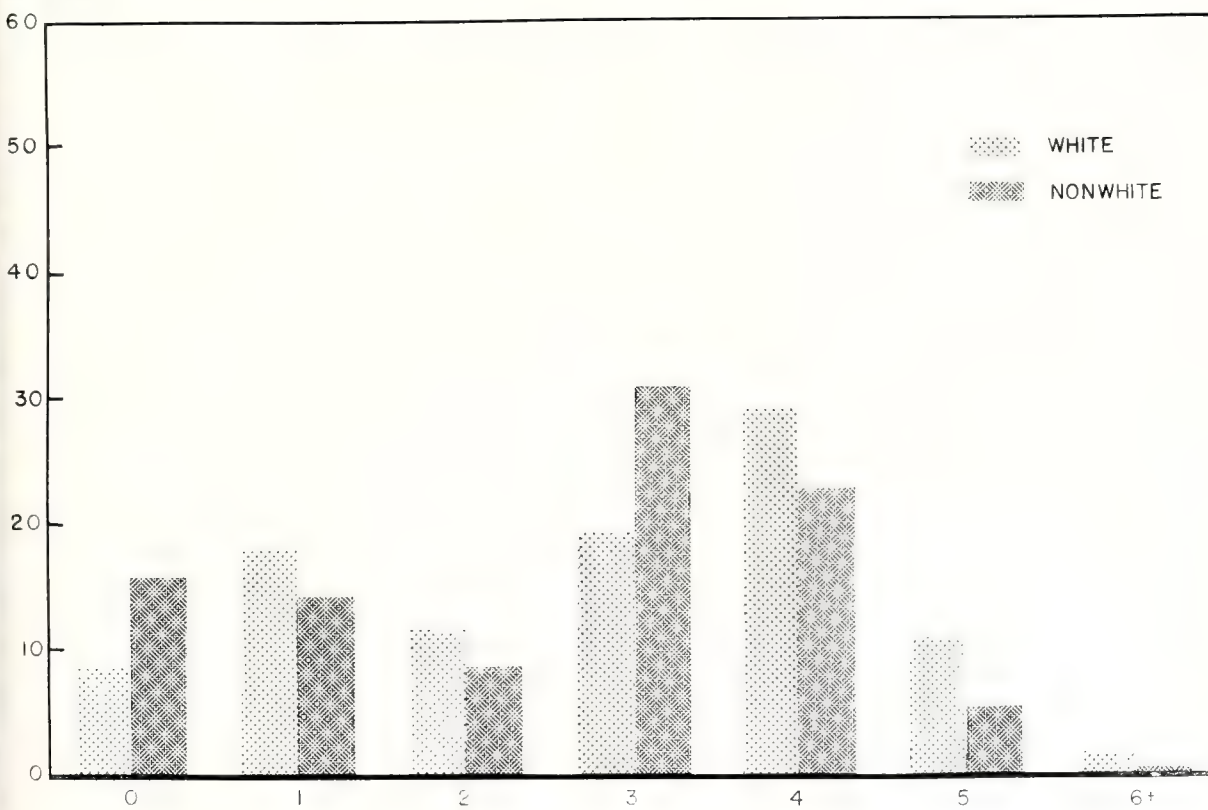


Fig. 5. Diphtheria immunization: Distribution by date of first injection.

PER CENT



PER CENT



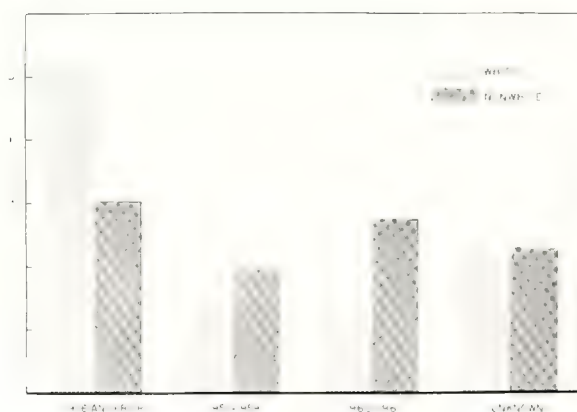


Fig. 8. Pertussis immunization: Distribution by date of first injection.

white children had no record of immunization; 30.9 per cent of the white and 24.6 per cent of the nonwhite had had only one or two inoculations; 20.3 per cent of the white and 23.1 per cent of the nonwhite had three; and 43.5 per cent of the white and 31.6 per cent of the nonwhite had four or more.

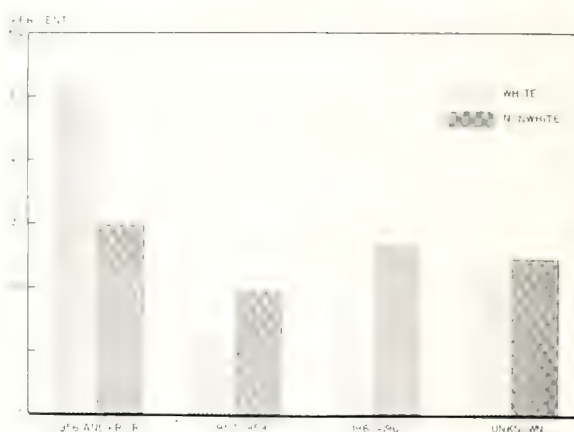


Fig. 9. Tetanus immunization: Distribution by date of first injection.

An analysis of the *time of immunization* shows that 52.9 per cent of the white as compared to 31.1 per cent of the nonwhite children were immunized prior to 18 months of age. This leaves 27.4 per cent of the white and 49.0 per cent of the nonwhite children who began their immunizations after 18

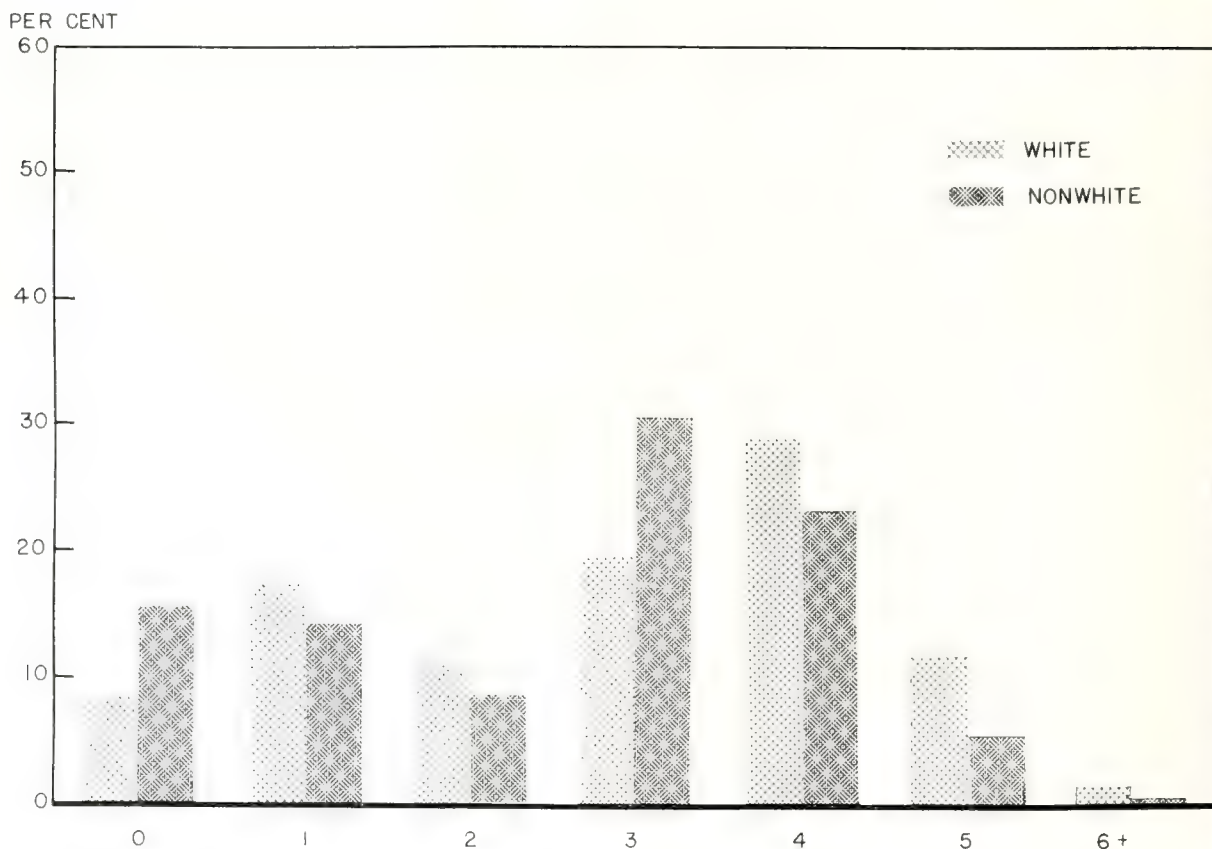


Fig. 10. Tetanus immunization: Distribution by number of injections.

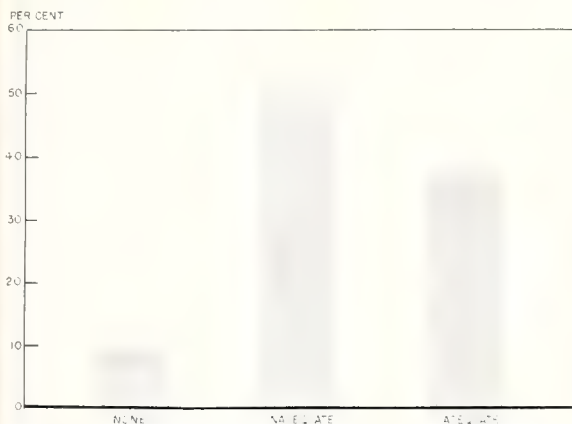


Fig. 11. Adequacy of immunization (Diphtheria, pertussis, tetanus).

months of age. The dates of immunization were not recorded for 19.7 per cent of the white and 19.9 per cent of the nonwhite children.

Discussion

All children in North Carolina are required to be immunized against diphtheria, tetanus, and pertussis before reaching the age of one year and against smallpox before being allowed to attend any public, private, or parochial school. In reference to polio, the law requires that any child between the ages of 2 months and 6 years shall receive adequate immunization, as determined by the North Carolina State Board of Health, in the form of a prophylactic agent against poliomyelitis. The law further states that no child may enter school without proof of such immunization. The law excludes any child whose parents are bonafide members of a recognized religious organization whose teachings are opposed to the practice of immunization, and also any to whom, in the opinion of a physician, such immunization might be detrimental. The broad public health regulations as well as those relating to poliomyelitis specifies a possible fine and imprisonment for violation of this law. It is true, however, that enforcement is extremely difficult except when the child is of school age.

What, then, is adequate immunization? As defined by the Academy of Pediatrics and the U. S. Public Health Service, it consists of a basic series of injections of an immunizing agent followed by appropriate



Fig. 12. Diphtheria, pertussis and tetanus immunization: Distribution by age at first injection.

boosters at proper intervals. Specifically in reference to diphtheria, pertussis, and tetanus, this means a basic series of three inoculations given at six-week intervals prior to one year of age, followed by a booster dose one year after the third inoculation and appropriate boosters at intervals of three years thereafter. In regard to poliomyelitis, the requirement is one inoculation per month for three doses, followed by a fourth inoculation seven months from the time of the third, and appropriate boosters at two-year intervals thereafter. Smallpox immunization requires vaccination before 1 year of age and a second injection at the age of 5 years or before entrance to school.

Now let us take the example of a 5 year old child who receives three inoculations against these diseases and a vaccination against smallpox just before entering school.



Fig. 13. Percentage of children having no record of immunization.

Theoretically he may be considered to be adequately immunized at this point in his life. If, however, he has gone through the first five years of life without protection, he must be considered as having been inadequately immunized for the earlier period—that is, from birth to 6 years of age. Therefore, no child who has had less than a proper basic series of injections in infancy, with appropriately spaced boosters thereafter, can be considered adequately immunized.

It is clearly evident from the data that our children are not being immunized properly. Consider this fact from the viewpoint that adequate immunization has two main features: (1) immunization in early infancy, and (2) subsequent booster doses at proper intervals. The study clearly demonstrates that too many children are beginning immunization after 18 months of age. Approximately 80 per cent of our children began their immunization against smallpox, 42 per cent against diphtheria, pertussis and tetanus, and 71 per cent against poliomyelitis after 18 months of age. From the standpoint of completeness, 52.1 per cent of the children were inadequately immunized against poliomyelitis and 53 per cent against diphtheria, pertussis, and tetanus.

Another major factor in immunization is adequate record-keeping. In our opinion, the large group of "unknowns" in this study probably represents inadequate immunization or none. We believe that most children who had proper immunization also had adequate records of it. The group of "unknowns" presents a definite public and school health problem, since in the event of an epidemic or exposure to contagion there would be no means of evaluating either the immunization status of the individual or of the school population. Secondly, it would be impossible to develop adequate plans to immunize children in any given area in the event of an epidemic without clear-cut knowledge of previous inoculations, including the dates. The problem is further emphasized when it is realized that 23,000 children, which is 20 per cent of the children who entered school Septem-

ber, 1961, had no dates of immunizations recorded.

After considering the available information, we believe that we must take vigorous steps to correct the situation. We therefore recommend the following measures:

1. A continuous and comprehensive review of all current immunization programs and practices.
2. This review should be aimed particularly at intensifying public interest in beginning the immunization of children in early infancy and improving the means of accomplishing it.
3. The development of better understanding and cooperation between physicians and public health agencies to insure that adequate immunization is available to all children.
4. Increased efforts to reach those who are not being immunized even though facilities are available.
5. An effort to impress parents that it is wholly their responsibility to see that their children are immunized, and immunized properly.
6. A review of all current legislation with the aim of modifying it in ways that will contribute to these objectives.
7. Improved methods of record-keeping in physicians' offices, health departments, and schools to insure that the pertinent information will be available whenever needed.
8. Emphasis on the responsibility of all agencies which are concerned with children, such as schools, child-care institutions, day-care facilities, and so forth, to see that proper immunization of children is encouraged.

Summary

A study of the records of 112,098 children currently enrolled in the first grade in the public schools of North Carolina has disclosed that only a small percentage of them have been adequately immunized. The large majority probably have had inadequate immunization or none against these serious childhood diseases. The study revealed that more children were inoculated against diphtheria, pertussis and tetanus early in in-

fancy than against poliomyelitis. This is probably because immunization to poliomyelitis was not required before 1959, nor has it been as readily available as that of the other three diseases.

It is interesting to note that immunization to smallpox was the most successful statistically. The probable explanation is that only one inoculation is required for smallpox as compared with a basic series of three inoculations followed by appropriate booster doses for the other diseases.

In conclusion, it is strikingly evident that we must take progressive and active steps to correct the situation.

The authors would like to thank the Department of Public Instruction; Dr. Carroll, the Superintendent of Public Schools; all first-grade school teachers, local health departments and public health nurses; and the statistical section of the State Board of Health for their valuable cooperation in accomplishing this survey.

* * *

Hemorrhage in the Newborn

CAMPBELL W. McMILLAN, M.D.

LAURINBURG

Abnormal hemorrhage in the newborn period is a rare event. When it does occur, however, major problems in diagnosis and treatment may confront the physician because of the complexity of the neonatal hemostatic mechanism and because of the urgency and technical difficulties of therapy. The purpose of this report is to suggest a practical framework for approaching the problems of hemorrhage in the newborn. For the most part, such a framework need not depend on intimate familiarity with the bewildering concepts of clotting nor on elaborate laboratory facilities.

Diagnosis

Hemorrhage in the newborn may be divided into two broad types: (1) vitamin K responsive, and (2) vitamin K resistant.

Vitamin K-responsive hemorrhage is presumably due to vitamin K deficiency, and is associated with a severe combined deficiency in activity of four plasma clotting factors: factor II (prothrombin), factor VII (proconvertin), factor IX (Christmas factor), and factor X (Stuart-Prower factor). This disorder typically occurs at two to five days of life in infants who have not previously received nor whose mothers have received any form of vitamin K. Vitamin K-responsive hemorrhage of the newborn is

strikingly similar to overdosage with dicoumarin drugs, and is reversible with injection of a single small dose of vitamin K. The reversal is characterized both by cessation of bleeding and by return of depressed clotting activities to safe limits. Thus the administration of vitamin K to a bleeding newborn infant constitutes a measure not only for treatment but also for diagnosis of possible vitamin K deficiency in that infant.

It appears that a variable degree of vitamin K deficiency is a physiologic event during the first week of life, well tolerated by the overwhelming majority of infants. The cause of this deficiency in newborn infants is not known. The rare occurrence of pathologic vitamin K deficiency which may be associated with hemorrhage in newborns seems to represent an exaggeration in some infants of a combined clotting factor disturbance which is mild in most others. These intriguing and very poorly understood phenomena may be couched in familiar terms as follows: During the first week of life virtually all infants show a clotting factor disturbance which is similar to the effects of inadequate treatment with dicoumarin drugs—a disturbance which is not causally related to hemorrhage and which may be regarded as physiologic vitamin K deficiency; rarely, an infant may show in the first week of life a clotting disturbance similar to the effects of overdosage with dicoumarin drugs, a disturbance which may

be causally related to serious hemorrhage and which may be regarded as pathologic vitamin K deficiency. Premature infants appear to be more prone to develop this condition than are full-term infants.

There is substantial agreement that vitamin K administered prophylactically to a newborn infant immediately after birth will prevent the appearance of pathologic vitamin K deficiency in the first week of life. One would expect that such treatment would also obliterate the so-called "physiologic" clotting factor disturbance if the concept of vitamin K deficiency were correct. However, evidence in this regard is somewhat conflicting.

The term "hemorrhagic disease of the newborn" has been largely applied to those instances where hemorrhage can be related to pathologic vitamin K deficiency¹. This rather limited meaning of the term is somewhat unfortunate in that it tends to obscure the existence of other mechanisms of hemorrhage in the newborn.

Resistance to vitamin K

These mechanisms have in common a lack of clinical response to vitamin K therapy, and they consist of the following: (1) hereditary clotting factor deficiency, (2) thrombocytopenia, and (3) disrupted blood vessels due to local or systemic disease, not necessarily associated with a clotting disorder. This report is not designed to elaborate on these mechanisms at length. However, the following comments are offered:

These mechanisms may be associated with hemorrhage clinically similar to or even identical with hemorrhage associated with pathologic vitamin K deficiency. In the absence of elaborate laboratory facilities, a critical evaluation of the child's response to vitamin K therapy is a useful and valid step in the differential diagnosis. Beyond this simple measure, a careful appraisal of the history and physical findings, and an inspection of a peripheral blood smear (preferably of the cover-slip type), will usually provide the clues necessary for an intelligent diagnosis. It should be emphasized that bleeding and clotting studies of the sort available in most hospitals may

be regarded as a total waste of time and effort.

Treatment

Replacement of blood loss

Because the total blood volume of the newborn infant is only about 300 ml. on the average (or about 80 ml. per kilogram of body weight), treatment of any brisk hemorrhage must unmistakably take precedence over diagnostic steps. This can be better understood if one considers that the loss of 10 ml. of blood from an average newborn is equivalent to the loss of about 200 ml. of blood from an average adult. Thus the first step in the management of a bleeding newborn is to assess the extent and rate of blood loss, and the second is to replace blood as indicated. In this connection, it should be emphasized that in case of brisk hemorrhage, clinical assessment of blood volume and blood loss is far more valuable than the results of hemoglobin and hematocrit determinations. The precarious state of a newborn with rapid loss of 100 ml. blood into the gastrointestinal tract may not be apparent from any laboratory test. If the infant shows evidence of critical blood loss, an intravenous infusion should be started immediately and whole blood, preferably fresh, should be procured on an emergency basis. In view of the frequent difficulties in finding a good vein in a newborn infant, the umbilical vein should be remembered. In reasonably experienced hands, this vein—even when the cord is dried up—can be rapidly located and cannulated with a sterile plastic feeding tube (no. 8 or 5 French) through which intravenous therapy can be carried out.

In any instance where blood loss is protracted, replacement therapy should be carried out by means of fresh whole blood. Secondary thrombocytopenia may be a serious hazard of massive treatment of a bleeding infant with aged (and therefore platelet-deficient) banked blood. The use of aged blood should be restricted to initial emergency replacement when fresh whole blood is not instantly available.

When the blood replacement needs of the infant are adequately met, diagnosis and

further treatment may then be considered. In this connection, the next step should be the administration of vitamin K₁ (fat-soluble) intravenously. Although a single dose of 1 mg. or less appears to correct pathologic vitamin K deficiency, it is suggested that a single dose of 5 mg. be given in order to provide a comfortable margin.

Vitamin K

Considerable heat has been generated in the recent literature regarding the use in the newborn period of vitamin K because of its association with hyperbilirubinemia. There can be no logical argument, however, against its proper use in the prophylaxis or treatment of neonatal hemorrhage due to pathologic vitamin K deficiency. Significant neonatal jaundice has been shown to be related to vitamin K only when *large* doses of *certain* water soluble vitamin K preparations have been administered. The very small doses of vitamin K which suffice for prophylaxis or treatment of pathologic vitamin K deficiency have not been incriminated in this way.

For prophylaxis, either vitamin K₁ (fat-soluble) or water-soluble vitamin K injected in a single intramuscular dose of 1 mg. is adequate. Injection of the infant after delivery rather than of the mother before delivery appears to offer the infant the most predictable protection. For treatment of pathologic vitamin K deficiency, vitamin K₁ (fat-soluble) is preferable to water-soluble vitamin K because of the more rapid action of the former. Its administration intravenously further enhances the speed of a therapeutic effect. If a newborn infant develops hemorrhage after receiving prophylactic vitamin K, it is exceedingly unlikely that pathologic vitamin K deficiency is the cause of the hemorrhage. Nevertheless, an additional dose is warranted in order to rule out this possibility without question.

Within one hour after intravenous injection of vitamin K₁ there should be clinical evidence that the bleeding has stopped, if it were caused by pathologic vitamin K deficiency. If bleeding continues four hours after injection, this mechanism of hemorrhage can be ruled out. Within this period

there should have been an opportunity to inspect the peripheral blood smear for adequacy of platelets. If thrombocytopenia exists, platelets will be either absent or unmistakably reduced on the smear. The occurrence of idiopathic thrombocytopenic purpura in the mother should particularly alert the clinician to the likelihood of thrombocytopenia in the infant. Management of such infants by physicians experienced in hematologic techniques is very desirable. However, if the clinician in charge of a thrombocytopenic infant feels that transfer of the patient to a medical center would involve undue risks and delays, the infant may be treated with fresh whole blood replacement (25 mg. of hydrocortisone given intravenously every six hours) and other measures as indicated.

If hemorrhage in a newborn infant does not subside after administration of vitamin K₁ and platelets are adequate on smear, the management of choice is simply to continue a conservative regimen of fresh whole blood replacement and careful observation. In general, such a regimen is indicated regardless of the ultimate diagnosis. Major surgery should be avoided at all cost in such infants unless the following conditions are met: (1) the indications for surgery are unmistakable, (2) complete coagulation testing facilities are available, and (3) a full range of replacement therapy is available, including fresh plasma and fibrinogen.

Summary

Hemorrhage in the newborn, regardless of cause, constitutes a potential or actual emergency in which treatment must take precedence over diagnosis. Clinical assessment of the need for whole blood replacement (preferably fresh blood), and constant provision for this need, should be foremost principles of management.

Types of hemorrhage in the newborn may be considered broadly in terms of responsiveness or resistance to vitamin K therapy. This phase of differential diagnosis is best resolved by the intravenous injection of a single small dose of vitamin K₁ (fat-soluble). After this injection clinical improvement in cases of pathologic vitamin K

deficiency should be evident in less than four hours.

In instances of vitamin K resistant hemorrhage, careful assessment of the history and physical findings and inspection of platelets on a good blood smear are the diagnostic tools of choice. In such instances, a conservative regimen of fresh whole blood

replacement will usually offer the infant an optimal chance for recovery. Radical measures should be avoided unless available diagnostic and therapeutic facilities are complete.

Reference

1. Report of Committee on Nutrition: Vitamin K Compounds and the Water-Soluble Analogues, Pediatrics 28: 501-507, 1961.

* * *

Preparing for the Later Years

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GREENVILLE

It would be presumptuous for me to assume that I am an authority on aging; my remarks will be those of an outsider looking in. Frankly, my chief concern with this topic is personal, and the fact that each spring I must deal with it both positively and negatively, on one hand urging people to continue their careers, while on the other encouraging them to retire.

I am not going to dwell on a definition of aging, for your literature has probably exhausted the subject. The philosophers tell us that age does not depend upon years, but upon temperament and health. Some men are born old and some never grow so. A tombstone in New England bears the following inscription:

This man died at 30.
He was buried at 70.

I believe I am right in assuming, however, that the topic is definitely basic, and the overall objective should be that of a better way of life for the individual and the improvement of our society in general; the extent to which and the reasons why departures from this major objective occur are better known to you.

Ad hoc training in how to be healthy though old presents problems that lie within the medical profession, but laymen join you in seeking solutions. As I see it, the major tasks involve an analysis of our new,

emerging society, and suggestions as to how older people can fit into it and make significant contributions toward its betterment.

Historically, this is not a particularly new problem, and yet in terms of numbers and longevity, it is frightfully new. In seeking solutions we have seen the extremes from the veneration of the old as typified by the ancient culture, to the destruction of the old as witnessed during the Nazi regime.

A Forward Look

In our emerging new society, we must take a calculated guess on the future and then plan for it. Whether we like it or not, it appears obvious that all of us will be spending the rest of our days in the heart of the second industrial revolution. This will create problems for people of all ages. You will recall that the first industrial revolution substituted steam and coal for muscles. It freed men's backs. The new revolution, accompanied by a population explosion and political and social problems unheard of before, may well free men's minds and senses in their working world.

In Queen Elizabeth's time, it took 14 centuries to double the population; now, it takes only half a century.

This new age may see a strong friendship between science and religion. The scientist will probably see God more clearly, while the theologian will probably look upon science with much less suspicion.

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This second revolution will see new forms of energy and a new way of life.

Now, what are some of the predicted characteristics of this new age?

1. *Greater democracy in terms of the comforts of life; less democracy politically.* This may well confuse our older citizens, who have known life under a different system; yet their experience could be most helpful for all of us. They might well assume the role of elder statesmen or tenacious critics of those features that remove bit by bit our personal involvement in government. Society must move with caution here, however, because years do not necessarily make sages. They often make only old men.

Young people who have been brought up under the influence of mass media of communication will not understand the many implications involved as will the more mature.

2. The second obvious characteristic that will affect the aging considerably is *the promise of longer life*. Since 1900, man's average life expectancy has increased about a quarter of a century. It is predicted that in the not too distant future an expectancy of between 90 and 100 may be attained.

There is no point in my cataloguing the various advances made by man in his attempt to conquer diseases. I should point out, however, that all this progress has resulted in giving man a long new period of living. This fact concerns all society, because when we discuss the so-called aging group we are dealing with almost one-fourth of our population in North Carolina.

3. The third feature of the new age will be *automation*. Man will not only live longer, but work much less.

Human senses may well be replaced by electronic devices: the electronic ear; the electronic eye; computers and calculators.

Man will see changes in geography. The world will become smaller.

Alexander Pope tells us that when we are young we are slavishly employed in pursuing something whereby we can live comfortably when we grow old, and when we are old we perceive it too late to live as we proposed.

Our task is to bring this perception into closer and more meaningful focus.

Guides to Understanding

How shall our senior citizens prepare for such a life? It is the responsibility of our elder citizens, assisted by the best thinking possible in all of our disciplines, to ascertain and discover some of the qualifications and attributes that made for happiness and adjustments in the past, and experiment to see if they are applicable to the present; but the experimentation must be done by the people most affected—namely, the aged.

They may well discover that one of the enduring qualifications for existence on this globe is the desire to help their fellow men, for this may well contribute to their own personal satisfaction.

The great English poet John Donne said:

No man is an island entire of itself . . .
Any man's death diminishes me, for I am involved in mankind; . . . and therefore never send to know for whom the bell tolls; it tolls for thee.

As any man's death diminishes you and me, so in like manner any man's good deeds benefit you and me and our country.

To put this truth in another way, you will recall that on one occasion when Jesus saw the multitude, He went up unto the mountain and the people followed Him, and He told His disciples: "If you love men which love you, what reward have ye? Do not even the publicans the same? If you salute your brothers only, do not even the publicans the same?"

Then He asked a very significant question—a question that we ought to ask ourselves throughout our lives, because it reveals one of the qualities of a truly successful man or woman: "What do ye more than others?"

That is the distinguishing mark of a successful man or woman: "*What do ye more than others?*"

I sincerely believe that this is something our senior citizens must learn for themselves; and when they do, their own personalities will emerge, their own new way of life evolve. People are much more willing and able to implement programs when they

are involved in making decisions. Not only are the results more knowledgeable, but there is greater incentive. It is for that reason that I think our senior citizens are not going to embrace patterns of life and programs of activity conceived by people who have not experienced the inner conflicts, the unmentioned fears, known only to those who are living with them. Oliver Wendell Holmes tells us that a person is always startled when he hears himself seriously called old for the first time.

To draw a simple analogy, I cannot visualize any community of interest, no matter how well intended, in a program of activity for people between the ages of 40 and 50 organized by a group of social scientists in their twenties. The mere fact that I am in my forties does not arbitrarily place me in a group wherein I should be concerned with or enjoy that which interests other people in their forties, for our interests are too varied. Interests do not necessarily follow age classifications. We have erroneously assumed this to be true in other phases of our society: for example, the mere fact that I am a Methodist does not mean that I prefer to build my life around Methodist-sponsored activities.

This is difficult for professionals to comprehend. Our life has many facets, and religion is one of them; but in like manner so is age. We therefore often become amazed when we discover that our young people are interested in their religious denomination for religious purposes only, and will not accept its spilling over into other phases of their lives. Now, this truism applies not only to young people, but to our elder citizens as well.

The Hucksters

This group in our society who are in the twilight of life realize more than we do that there is no place to hide. They are confronted with many peddlers seeking their time, their interests, and their money. They are being urged to seek the radiant Christian life by people who have no conception of it themselves. For the first time, they have a chance to reflect that life is like a fair or a carnival.

There are barkers calling to them from many tents and gates. One is shouting that happiness is found through health, another through creativity, another through recognition; and they are asked to become joiners. If they don't watch out, they may well be running themselves into their graves through the sheer monotony of attending dull meetings.

Another barker shows glowing pictures of happiness by way of insurance retirement plans. These enticements are often ludicrous and amazing not only to the aged, but to all of us; for I have not been able to find that part of Florida where \$125 a month brings happiness.

Another pitchman is urging the political street for our senior citizens, reminding them of their political strength and telling them that regardless of their training or heritage, they must vote as a block because of their age. Although this is silly, it has met with some success in some of our states.

Some are shouting that happiness is found through prestige. The intellectuals and pseudo-intellectuals are selling knowledge; but the individual remains an individual, and sits on the balcony of life listening to it all, just as he is probably following this conference by way of the newspapers.

These hucksters are all offering bribes, while the prospective joiner is looking for a challenge—a challenge to usefulness, a challenge to service, a challenge to serenity.

I sincerely believe, as an outsider looking in, that the answer may well be spiritual. We must not lose sight of the fact that these people are entering into the childhood of immorality. Perhaps we ought to take the advice found in the Bible: *Be still and know that I am God.*

A Creative Approach

The things that I have said thus far regarding adjustment are much easier to pronounce than they are to do. Any program for the aged will be extremely difficult to execute unless it is done in conjunction with the people concerned and the finest type of diplomacy is employed. The typical person beyond 65 has lived long enough to know

that people are sensitive. He knows that he is expected to embrace any program that is devised for his benefit. He often finds himself in the same position as the little kindergarten boy in the highly progressive school who asks his teacher, "Must I do today what I want to do?"

If he doesn't become involved in all of our planning, we call him uncooperative. This offends him, for he has spent his life cooperating. The wisdom of Ben Jonson appears very applicable here. He said, "Our aging people to be vital must be prepared and willing at all times to bark once in a while." He said further: "Don't think of retiring from the world until the world will be sorry that you retire. I hate a fellow whom pride or cowardice or laziness drives into a corner, and who does nothing when he is there but sit and growl. Let him come out as I do, and bark."

We must not only expect, but encourage, this large segment of our population to bark and bark often. They should not be expected to sit back and be the recipient of our various schemes designed to shape their lives.

As one whose job it is to sell education, I, too, should like to become a barker. I believe it would be of value to some of our future senior citizens to consider the possibility of a second career. This might well begin on a very modest basis through correspondence instruction and night courses, about 10 years prior to the time for retirement. Thousands of our people spend the better parts of their lives pursuing careers that are of little interest to them, but from which they had no escape. Some do so because of the necessity of supporting a family; others because of the absence of youthful guidance; some do it to please parents, and for various other reasons.

The second career entered into in a non-competitive and voluntary way should bring great personal satisfaction as well as helping society. Much of our community effort could and should be done by people with the time to do it. Here is a vital and useful role for this large group of our population.

These new careers may be both vocational and avocational, depending upon the circumstances and the desires of the individual. Grandma Moses began late in life a new career which not only delighted her, but also made a great contribution to the world. If we desire to make any contribution at all to the problem of aging, let us make possible numerous opportunities for usefulness.

Perhaps those of us who are middle-aged and involved in the power structure of our society can make our greatest contribution to the aging by seeking their advice and getting them actively involved in the solution of our problems. This should do much toward giving them not only a feeling of belonging but one of anticipation of service as they approach their latter years.

Homer tells us that Grecian ladies counted their age from their marriage and not from birth. When I was in college, Walter Pitkin sold us on the idea that life begins at 40. Perhaps with proper involvement, we might well arrive at the place where we can honestly say life begins at 65.

Conclusion

We must recognize that each older person must look at his own peculiar situation. Never should it be assumed that all older people are alike. The writers for the American Medical Association tell us that differences are greater in this age group than at any other time in life. Successful living demands that the oldsters recognize this fact.

The important thing is to organize our projects and our society so that no one ever develops a "life-is-over" complex in later years; for, when one begins to retreat from life he starts down the avenue leading to serious depression and emotional disorders. As long as we remain on this globe, we must continue to have a feeling of purpose and a zest for what tomorrow will bring.

May God give us enough wisdom to help our aged make their lives useful, productive, and happy.

Report from The Duke University Poison Control Center

JAY M. ARENA, M.D., *Director*

ALCOHOL, ETHYL (ETHANOL, GRAIN ALCOHOL)

Alcohol is a primary and continuous depressant of the central nervous system and has the same general properties of the methane series. The range between a dose which produces anesthesia and one which impairs actual functions is small. The toxic potentialities of the imbibing of alcoholic beverages in children should never be overlooked or minimized. Many have been made seriously ill, and a number of deaths from ingestion have been reported when children were unsupervised and had easy access to these products. The fatal dose is from 250 to 500 Gm. of alcohol (500 to 1000 ml. of whiskey). In chronic poisoning there are degenerative changes in the liver, kidney and brain, gastritis, and eventually cirrhosis of the liver. In acute poisoning, however, there is rather severe edema of the brain and gastrointestinal tract with hyperemia.

The signs of alcoholic intoxication can be simulated by the effects of drugs, and many diseases such as diabetic coma, subdural hematoma, and so forth. The odor of the breath is a notoriously misleading index as to whether the suspect has taken sufficient alcohol to cause his symptoms, and indeed it is a poor guide for any intoxication at all.

Symptoms. Symptoms vary with the alcohol level of the blood. At levels of 0.05 to 0.15 per cent, there is slight muscular incoordination and visual impairment and a slowing of reaction time. Levels of 0.15 to 0.3 per cent produce slurring of speech, definite visual impairment, muscular incoordination, and sensory loss. At levels of 0.3 to 0.5 per cent there is marked muscular

incoordination, sensory loss, blurred or double vision and approaching stupor, while at 0.5 per cent concentration there is coma, slowed and labored respiration, decreased reflexes, and sensory loss. Deaths occur in this range. Chronic poisoning is characterized by weight loss, gastroenteritis, polyneuritis, optic atrophy, mental deterioration and frequently psychosis (Korsakoff's syndrome), delirium tremens, and cirrhosis of the liver.

Treatment. The patient should be put to bed and protected from injuring himself. Body temperature should be restored to normal. The unabsorbed alcohol should be removed by gastric lavage or emesis, but apomorphine, because of its depressant effect, should not be used for this purpose. Adequate air way and oxygenation should be maintained. Sodium bicarbonate (1 teaspoon to 1 pint of water) should be offered by mouth every hour to prevent acidosis. If acidosis has already occurred, a 3 to 5 per cent solution of sodium bicarbonate should be administered intravenously until plasma bicarbonate is restored. Excessive fluids and depressant drugs should be avoided. Caffeine should be given a prominent place in the treatment because of its excellent pharmacologic antagonism to alcohol. Combined with sodium benzoate it can be given in doses of 0.5 Gm. (7½ grains) intramuscularly. If caffeine is not available, strong coffee by mouth is a good substitute. Excessive use of potent respiratory stimulants is contraindicated. The increase in intracranial pressure which often occurs can be treated with hypertonic intravenous glucose. Urea therapy may also prove effective.

The victims of chronic alcoholism require psychotherapy by a competent, interested physician. Alcoholics Anonymous (see listing in local phone directory) will help those patients who genuinely desire help. Disulfiram (Antabuse) therapy over a period of a year may be helpful in overcoming addiction by inducing sensitivity to alcohol.

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DECEMBER, 1963

DR. ROY NORTON PRESIDENT OF THE AMERICAN PUBLIC HEALTH ASSOCIATION

At its ninetieth annual session in Miami, October 15-19, Dr. Roy Norton, North Carolina's State Health Director, was installed as president of the American Public Association. Editor Edwin S. Preston devotes most of the October issue of *The Health Bulletin* to a pen picture entitled "Roy Norton—the Man," giving the highlights of his career from his birth on a Scotland County farm to his present position as head of the State Health Department. Dr. Preston has done an excellent job in presenting Dr. Norton's human side: as a fisherman, as an athlete, as a student, as an officer in both World Wars, and as devoted husband and father. Deserving special mention was a tribute to his ability to work with people, using as his philosophy the motto which

hangs on his office wall: "If you want to get the best out of a man, you must look for the best that is in him."

This journal is happy to offer congratulations to Editor Preston for his fine human interest story; to Roy Norton for the well-deserved recognition shown by his selection as president of the APHA; and to that organization for having such a capable leader for next year.

* * *

CALIFORNIA'S CRIMINAL CHIROPRACTOR

One of the greatest arguments against chiropractors and other healing cults is that the false hopes given patients or their families may result in delaying proper treatment. The delay may be fatal. Such a case in Los Angeles was reported in the October 20 issue of *New York Medicine*, the official publication of the Medical Society of the County of New York.

A chiropractor claimed that he could cure a child of cancer, and was paid \$739 for his treatment. He was convicted of second degree murder, on the ground that he was responsible for a death that might have been prevented by proper treatment on time.

As a district attorney of Los Angeles said: "For the first time in Anglo-Saxon legal history, a defendant has been convicted of murder *where the instrument of the killing was a deliberately false statement.*"

Deputy District Attorney John W. Miner, who prosecuted the case, said: "This is the greatest blow yet struck by the law against cancer quackery."

The case has been appealed, and the Chiropractors' Association will fight to have the verdict overruled.

To quote Attorney Miner again: "If this case stands up on appeal, it will establish a precedent which could have great significance in the operation of medical examiners' offices and coroners throughout the country. Very briefly, this would be true in

instances where the chief Medical Examiner's autopsy surgeon finds the cause of death to be some disease process which would have been responsive to proper medical treatment but the decedent was under the care of someone who—knowingly and with intent to deceive—represented to the decedent that he could cure this disease process. Thus, the deceased, relying on these false representations, was prevented from seeking the medical care that would prolong or save his life. Essentially, this is the holding in the Phillips case. It will plunge governmental autopsy surgeons into the murky depths of proximate cause in a way never before experienced."

On which the New York editor comments: "One may sympathize with the medical examiners in the extra caution they may now have to employ, but one can also be wholly sympathetic towards the protection the precedent will establish for innocent patients who have been bilked of their money and even their lives by the faith-healers, chiropractors and quacks who prey on cancer victims and their families."

* * *

FAITH TRIUMPHANT

Many successive generations of Wake Forest students knew and admired and loved Mrs. Edith Taylor Earnshaw.

She was born in Wake Forest, the youngest daughter of Dr. Charles E. Taylor, who was president of the college, 1884-1905. From both parents she inherited a brilliant intellect, which she cultivated all her life. She also had a magnetic personality which won her a host of friends. She was married to Elliott Earnshaw, for many years the Wake Forest College bursar. Their congenial tastes made their marriage a happy one.

Although nobody loved Wake Forest College more than did Edith Earnshaw, she did not let the move to Winston-Salem embitter her, but made frequent visits to the new location.

She wrote many fine poems, characteriz-

ed by a charming sense of humor and a profound knowledge of human nature.

During the last two years of her life she became increasingly incapacitated by amyotrophic lateral sclerosis—Lou Gehrig's disease. For more than a year she knew that there was no hope of her ever getting well, and that she could only look forward to a steadily increasing weakness. To the very end, however, she kept her cheerful spirit and wrote some of her finest poems. Many of these were published last December by Edwards and Broughton, in a slim volume entitled simply "Verses."

Her last poem, which she designated for publication after her death, was published in the *Wake Forest Magazine* for August, and is reproduced below. It speaks volumes for Edith Earnshaw's true character and her sublime faith.

Weep Not For Me

Weep not for me!
 Instead Rejoice! Rejoice!
 Now I can sing, for I have
 found my voice.
 I am done:
 Rejoice! Rejoice!
 Now I can walk, can run.
 Weep not for me! But bear in
 mind, dear friends,
 I shall remember you
 until time ends.
 Wake Forest, blessed village
 of my birth,
 You evermore will be my
 Heaven on earth.

* * *

THE QUESTION OF ABORTION

Recently abortion has become a favorite topic of conversation among doctors, lawyers, journalists, and the public generally. Too often more heat than light is generated in the discussions.

This issue contains an authoritative discussion of the problem by Dr. W. Joseph May, who succeeded Dr. J. F. Donnelly as chairman of the Maternal Welfare Committee of the State Medical Society. Since Dr. May presents the unanimous opinion of this committee, his paper is important enough to be given first place in this issue.

President's Message

HEALTH CAREERS

Physicians in North Carolina are aware of the increasing demand for trained personnel in all fields of health and medical care. We realize too, the rapid growth of our population and the effect this will have on demand for medical services and therefore, we share in the responsibility for interesting young people today to enter selected health professions in order to maintain the high standards of health care we experience today and expect to have in the future. As leaders of the health care team, we know the value of qualified personnel and must continue to work with our co-workers in health and allied professions in strengthening educational standards and curricula to assure our patients the best in medical care.

In 1945, the people of North Carolina expressed their concern over the lack of health facilities, training programs, prepaid health insurance, and the need for increased numbers of health and medical personnel. Today we look back at the progress made in each of these problem areas and are proud of the accomplishments, but the greatest need cited in 1945 remains a problem—*increased medical care services*. To have increased medical service requires an increase in the number of practicing physicians throughout the state. This should be our chief concern. We have the opportunity, the responsibility, and the obligation to encourage young people to enter medicine. We have increased the number of medical schools, enlarged the classes, and streamlined the curricula, but the supply is not meeting the demand. Within the profession, there are wide areas of choice related to teaching, research, administration, industry, public health, foreign service, and the military—all competing for the services of the inadequate number of practitioners. Today the wide spectrum of professional opportunity for the talented and conscientious student increasingly competes with medicine in the choice of a career.

National statistics show that there are two applicants for each opening in our medical

schools. In North Carolina, the number of applicants exceeds the national average but does not reflect the demand of ten years ago and is declining as other opportunities increase in the fields of engineering, electronics, and nuclear science. Physicians cannot expect other professions to recruit for medicine; physicians must take the lead in this endeavor. We must ask ourselves do we really want our sons and daughters to study medicine and subject themselves to the long, rugged period of training and cope with the financial burdens of preparation when they can enter other fields and gain their professional status much easier and earlier? Too often we are so over-worked and over-extended in the rendering of medical service to the people, that we become too protective of our children and try to shield or lackadays them from such a heavy load of responsibility. We are at fault many times, not by commission but by omission, in our failure to focus attention on the important role of leadership of the physician in his community and the real service he renders to people. We know the rewards of being physicians but fail to express them positively to our own children or to the children of our friends and associates and thus fail to attract them into the profession.

I am asking you as physicians in North Carolina, to give more than lip-service or a contribution to your medical school in combating the shortage of doctors for the future. We are going to have to lead in the crusade of finding capable, interested, and talented young people and taking time to meet with these students, many of whom are or will become members of "future physicians clubs", health career clubs, or in other ways have expressed an interest in medical training. The North Carolina Chapter of the Academy of General Practice is leading the way through its beginning implementation of "Project More". Through this project, local physicians are assisting across the state in demonstrating the practice of medicine, not only as a profession, but as a way of life to

high school students. The students visit the doctor's offices, visit the hospitals, make house calls, and gain first-hand knowledge of the daily routine and services rendered by local practicing physicians. By such close personal contact, the physicians had an opportunity to influence and inspire young people showing them the personal satisfaction, rewards, and responsibilities of the practice of medicine. We cannot be "im-personal" and expect to attract young people today to follow our footsteps. We must be willing to give of ourselves in this effort.

Training more doctors will demand more financial assistance in scholarships, in facilities, and in teaching personnel, but we must first have medical students to teach and to prepare. There are increasing numbers of scholarships and loan funds available to medical students that help ease the burden of expensive training. A new program, recently announced by Pfizer Laboratory and Company, is a \$1000 scholarship to medical schools for assisting one or more students each year. Once accepted into medical school, the student will have opportunity for financial assistance from multiple sources.

Duke Endowment Survey

A survey conducted by the Duke Endowment Foundation early in 1962 showed an estimated aggregate need of 4,770 additional persons to serve in 28 categories of the paramedical and medical professions in North Carolina. The study, made at the request of the North Carolina Health Council, was designed to learn the additional personnel necessary in these areas to provide optimum patient care. The survey did not include the need for physicians, dentists, and some other health categories. The greatest shortage was in the number of professional nurses for all fields of service. Other professionals were also categorized as to numbers needed in various services. Mr. George P. Harris of the Duke Endowment Field Service stated that the survey emphasized in a very dramatic way the need for an active recruiting program for health careers personnel and the part of all interested organizations and individuals in the state toward a better health program.

As physicians, we have a responsibility for assisting in a full program of recruitment for health and allied workers as well as for physicians, yet our first concern is and should be that of interesting young people to study medicine and helping them in every way possible to gain their basic education and medical training suitable for medical practice in North Carolina.

The Medical Society of the State of North Carolina has been asked to cooperate and is considering financial participation in a state-wide Health Careers Recruitment Program, sponsored by the North Carolina Hospital Association and the N. C. Health Council, in an effort to encourage high school students to make career choices in one of 150 health service fields. The Duke Endowment and R. J. Reynolds Tobacco Company have pledged funds to help conduct the program over a three-year period. The Duke Endowment will grant \$25,000 per year for three years, provided hospitals, other industries and organizations make a combined pledge of \$50,000 annually during the period. R. J. Reynolds Tobacco Co. has pledged \$5,000 annually toward the goal. Mr. Marion Foster, Executive Director of the N. C. Hospital Association, reports some \$19,000 annually already pledged by 99 of the 170 hospitals in the state, seven hospital auxiliaries, and the Hospital Care Association, in support of this effort. The estimated cost for a three-year demonstration program is \$250,000 of which foundations and private contributions are expected to match two for one, contributions by hospitals and other related resources. The Medical Society's Executive Council at its September 16, 1962 meeting considered participation in this total effort and will act on the subject January 27, 1963.

North Carolina continues to meet the challenge for better health and medical care services and will make the necessary sacrifices to help bring the supply of health and medical personnel, facilities, and services nearer to the demand of its citizens. I am confident that we, as physicians, will do our part in meeting this growing need for health personnel.

Presentation of Distinguished Service Medal
to
DONALD B. KOONCE, M.D.
at the

ANNUAL MEETING OF THE NORTH CAROLINA
DIVISION, AMERICAN CANCER SOCIETY
October 20, 1962

The American Cancer Society recognizes an outstanding medical leader when it finds one. He should be a physician with a broad knowledge of the cancer problem. He should be willing to sacrifice time and energy and cheerfully take on all kinds of assignments. He should be a planner and an organized. He should be dedicated. He should know that the only reward for all his services will be the satisfaction of helping people.

And if you are fortunate, he will be a man of vision with a strong sense of responsibility; and inspiration to his fellow volunteers in the American Cancer Society, his profession and the public.

Dr. Donald B Koonce, the distinguished surgeon, is such a man He has been a tower of strength in the American Cancer Society for fifteen years, serving at county, state and national levels His contribution to the American Cancer Society has been immeasurable The posts he has held in the New Hanover County Unit and the North Carolina Division are too numerous to mention. He is now a National Delegate Member.

He has given hundreds of talks on the cancer problem in the State of North Carolina and beyond the state. A keen, vigorous person, he has been a vital catalyzer in welding a close partnership between the Society and the medical profession. The responsible positions of leadership he has held in various medical societies are as numerous as those with our own organization. Here he has served with the same distinction we have come to know so well in the Society.

Despite his heavy professional schedule, Dr. Koonce has never been too busy to give generously of his time, counsel and hard work to the American Cancer Society.

When one goes down the long list of services Dr. Koonce has contributed to his profession, to the American Cancer Society,



Dr. Koonce receives Award

and to his community, one wonders how he finds time for his family—or for hunting and fishing and raising camelias and Pug dogs. But he does.

Dr. Donald B. Koonce, it is a real privilege and an honor to be given the opportunity to present to you on behalf of the Board of Directors of the American Cancer Society this Distinguished Service Medal.

RICHARD P. McGRAIL,
DEPUTY EXECUTIVE VICE-PRESIDENT
NATIONAL AMERICAN CANCER SOCIETY

**Klumpff Named Member of
President's Health Group**

Theodore G. Klumpff, M.D., president of Winthrop Laboratories and a vice-president and director of Sterling Drug Inc., of which Winthrop is a division, has been appointed by President Kennedy to the Health Resources Advisory Committee, a newly-formed unit of the Office of Emergency Planning.

Dr. Klumpff is the sole representative of the pharmaceutical industry on the Committee, which is headed by Dr. William R. Willard, University of Kentucky Medical Center. Members of the Committee met with President Kennedy on August 21 and received their Presidential commissions. [The Committee was set up in an effort to define objectives, and resolve problems, relating to the mobilization of the nation's health resources.]

REPORT ON TRAUMA

The North Carolina Chapter of the American College of Surgeons, as have many others, has been quite concerned about the early management of trauma. That there are inadequacies in present methods of handling this problem is pointed out by a recent review of the hospital records of 25 injured patients, selected at random, who succumbed within seven days of admission to a hospital. Of these, 8 patients lost their only chance of survival, 5 as the result of failure to maintain a proper airway, and 3 because of failure to initiate appropriate therapy. Five of these 8 had been seen by a physician prior to arrival at the hospital where they died.

As a result of this study and conversations with others interested in the problem, a subcommittee was established and charged with the task of better defining the quality of the early management of trauma in North Carolina and to make specific recommendations.

To set about this task, letters were sent to more than 100 physicians in all parts of the state posing the following questions:

1. What is the most common type of trauma encountered in your practice?

2. What is the most common error which you encounter in the early management of the acutely injured patient?

3. From your experience, what would you name as the most commonly misunderstood and mismanaged problem in trauma?

4. What is your opinion of the adequacy or inadequacy of the early management of acute trauma occurring in your geographic area?

There were 57 replies (tables 1-5).

While a majority of physicians indicated that the quality of the early care of trauma is adequate, many were quite specific in pointing out four shortcomings in this program: (1) failure to splint fractures; (2) improper management of chest injuries, and failure to maintain an adequate airway; (3) improper management of head injuries; (4) failure to recognize co-existing injuries.

An appraisal of the results of this survey suggests that the most critical time for the

Table 1
Physicians Replying to Questionnaire

	No.
General surgeons	21
Orthopedic surgeons	17
Thoracic surgeons	6
Neurosurgeons	4
Ophthalmologists	3
Urologists	2
Otolaryngologists	1
Total	57

Table 2
Most Common Injuries Encountered

Combined injuries	16
Fractures	12
Soft tissue injuries	13
Chest injuries	6
Abdominal injuries	5
Head injuries	4
Hand injuries	3

Table 3
Most Common Error Encountered

Failure to splint fractures	21
Failure to recognize associated injuries	13
Failure to maintain adequate airway	13
Improper management of shock (tourniquets, delayed treatment, etc.)	11
Improper position during transportation	9
Injudicious use of narcotics	2
Indiscriminate use of tetanus antitoxin	2

Table 4
Most Commonly Misunderstood and Mismanaged Problem

Head injuries	8
Chest injuries and compromised airway	14
Evaluation of multiple injuries	8
Blunt abdominal injuries	3
Fractures in general	8
Shock	6
Hand injuries	5
General care of wounds	3

Table 5
Evaluation of Early Care

Excellent	4
Adequate	27
Inadequate	15

severely injured patient is the early phase of his care. In the hope of being of some aid in improving this aspect of trauma care, the North Carolina Chapter of the American College of Surgeons Committee on Trauma

is initiating a Section on Trauma, to be published in the NORTH CAROLINA MEDICAL JOURNAL. With the help of many physicians throughout the state, a brief concise article will be offered each month for a period of approximately two years. These articles are not designed as an all-inclusive, final discussion of the problem, but will serve the salient and pertinent points in the management of various injuries. In addition, there will be scattered articles concerning some of the broader aspects of trauma.

The State Committee on Trauma, under the chairmanship of Dr. C. F. Siewers of Fayetteville, will welcome any comment or criticism concerning this program. At the end of this series, appropriate acknowledgments will be made to those individuals who have been invaluable in the preparation of this program.

HUMAN BETTERMENT ASSOCIATION OF AMERICA

Therapeutic abortions are being performed in many U. S. hospitals despite the absence of legal sanction, according to Dr. Alan F. Guttmacher, former director of obstetrics and gynecology at Mt. Sinai Hospital, New York City, in an interview published August 17 in **Medical World News**, challenging the abortion laws in the 50 states.

Dr. Guttmacher, who is chairman of the Medical and Scientific Committee of the Human Betterment Association, termed the nation's abortion laws archaic, and cited the recent unsuccessful attempt by the Phoenix, Arizona, mother to have a therapeutic abortion after having taken thalidomide.

Following publication of Dr. Guttmacher's interview, Mrs. Ruth Proskauer Smith, executive director of the Human Betterment Association, announced that the Association was polling its 1100-member physicians' panel on the advisability of broadening its program at this time to include "education of the public on the need for liberalizing our abortion laws so as to include protection of the mother's emotional as well as physical life, and to make provision for every child to have the birthright of a sound mind in a sound body." Since 1937 the Association has concentrated on education, research and service in the field of voluntary sterilization.

Editor's note: See page 547 for an opposing view of the question of abortion.

Bulletin Board

Coming Events

University of North Carolina School of Medicine; Two-Way Radio Conferences—WUNC-FM, 91.5 megacycles, January 8-April 9: **Review Course in Psychiatry for the Non-Psychiatrist Physician**—Chapel Hill, Wednesdays, January 16-March 20; **Seminar on Psychologic Medicine**—Chapel Hill, Wednesdays, January 16-April 3.

University of North Carolina Postgraduate Programs—Edenton, Wednesdays, January 16-March 20; Goldsboro, Thursdays, January 17-February 21.

Watts Hospital Medical and Surgical Symposium—Jack Tar Hotel and Watts Hospital, Durham, January 25-26.

Conference of County Medical Society Officers and Committee Members—Pinehurst, January 26.

North Carolina Mental Health Association, Leadership Conference and Annual Meeting—Sir Walter Hotel, Raleigh, March 7-8.

Roberson County Ninth Annual Heart Symposium—Lumberton, March 13.

Medical Society of the State of North Carolina, Annual Meeting—Asheville, May 4-8.

University of Virginia School of Medicine: Conference on Recent Advances in Radiology—Charlottesville, February 15; **Conference on Recent Advances in Clinical Neurology**—Charlottesville, March 15.

Southeastern Surgical Congress—Americana Hotel, Miami Beach, Florida, March 19-21.

Georgia Society of Ophthalmology and Otolaryngology, Annual Meeting—Oglethorpe Hotel, Wilmington Island, Savannah, Georgia, March 28-29.

American Academy of General Practice Meeting—Chicago, March 29-April 5.

Gill Memorial Eye, Ear, and Throat Hospital, Thirty-sixth Annual Spring Congress in Ophthalmology and Otolaryngology—Roanoke, Virginia, April 1-5.

American Medical Association, Annual Meeting—Atlantic City, June 16-20.

NEW MEMBERS OF THE STATE SOCIETY

The following physicians joined the Medical Society of the State of North Carolina during the month of October, 1962:

Drs. Paul Swicegood McCubbins, 1429 Arbor Drive, Salisbury; James Thompson Alley, Jefferson Building, Greensboro; Rheudolph James Wells, 914 North Elm Street, Greensboro; Palmer Friend Shelburne, 1011 Professional Village, Greensboro; William Sims Grabeel, Forrest Dr., Box 217, Pleasant Garden; Ralph Elbert Brooks, Jr., 624 Quaker Lane, High Point; Ernest Burton Spangler, 1301 Lakewood Drive, Greensboro.

Also Drs. Robert C. Brown, 129½ Purefoy Road, Chapel Hill; Victor Gray Herring, III, 800 St. Patrick Street, Tarboro; George Rufus Ratchford, Jr., 844 Nash Street, Rocky Mount; Tillie Horkey Caddell, Roseland Rd., Box 887, Aberdeen, Melvin Davis Childers, Jr., 1012 Kings Dr., Charlotte 7; Malcolm McLean, 1523 Elizabeth Ave., Charlotte; Charles Isaac Sheaffer, Lennox Building, Chapel Hill.

Also Drs. Donald Eugene McCollum, 1012 North Duke Street, Durham; Richard Lawrence Sallade, 2706 Stuart Drive, Durham; Penelope Kinsley Tosteson, Route 1, Piney Road, Durham; Rowland Elder Fullilove, Turkey Farm Road, Chapel Hill; Harold Ross Roberts, Route 2, Rogers Road, Chapel Hill; Herman Propst Lineberger, 424 Ridgefield Road, Chapel Hill; Edward Lee Mitchell, Box 156 Liberty; Harvey Adams, 167 MacArthur, Asheboro.

NEWS NOTES FROM THE BOWMAN GRAY SCHOOL OF MEDICINE WAKE FOREST COLLEGE

Dr. Donald G. Blain, a staff surgeon at Alexander Blain Hospital in Detroit for the past four years, has been appointed to the faculty of the Bowman Gray School of Medicine as instructor in urology.

A native of Grosse Pointe, Michigan, he attended Princeton University and received the Doctor of Medicine degree in 1950 from Wayne University. He served an internship at Union Memorial Hospital in Baltimore, Md., and a five-year residency in surgery at Church Home Hospital in Baltimore, Henry Ford Hospital in Detroit and Alexander Blain Hospital.

In addition to his teaching and clinical responsibilities, Dr. Blain will be involved in research on the development of an electrical stimulus that can be used to relieve bladder problems of paraplegic patients.

* * *

A project is under way at the Bowman Gray School of Medicine that is expected to revolutionize the storage, retrieval and correlation of data at the Winston-Salem medical center.

Dr. Harry M. Carpenter, assistant professor of pathology, has been awarded a three-year, \$172,000 grant by the National Institutes of Health for the development and installation of the system.

During the first year of the grant period, Dr. Carpenter will receive \$66,280, the largest single-year stipend ever awarded an individual investigator at the Bowman Gray School of Medicine by the NIH.

Working with Dr. Carpenter as co-investigator will be Glenn R. Johnson, data expert with Jonker Business Machines, Inc., Gaithersburg, Maryland.

The proposed medical data storage and retrieval system is an expansion of a system, known as "Termatrex," developed by Dr. Carpenter for the handling of data on autopsies.

Before 1960, autopsy records at the Bowman Gray School of Medicine, as in most other places, were contained in a standard alphabetical filing system. Through this storage method, individual cases could be retrieved and studied quite easily. But days of tedious research were required to make a quantitative study of multiple cases.

Dr. Carpenter's Termatrex system, based on concept coordination, came as a result of a long search for a method that would make stored data immediately accessible for quick and efficient correlation and analysis.

The system utilizes plastic cards on which data are entered by means of drilled holes at coded positions. Each card, measuring 9 x 11 inches, provides space to record 10,000 like cases. Upon retrieval, corresponding cards are placed over a light source for immediate reading.

The principles incorporated in this data system have been used in other sciences and industry but Dr. Carpenter's application of them is thought to be the first involving medical data.

* * *

Dr. Richard C. Proctor, associate professor and chairman of the Department of Psychiatry, has been installed as president of the Southern Psychiatric Association.

* * *

Clyde T. Hardy, director of the Bowman Gray School of Medicine's Department of Clinics, was installed as president of the National Association of Clinic Managers at the association's annual meeting in Chicago, Illinois.

* * *

Dr. Charles L. Spurr, professor of medicine, presented a paper on "Chemotherapy in the Treatment of Leukemia" at the annual meeting of the North Carolina Division, American Cancer Society in Raleigh.

* * *

Dr. Howard H. Bradshaw, professor and chairman of the Department of Surgery, spoke on "The Problems of Renal Stones and Hyperparathyroidism" at a meeting of the Knoxville Surgical Society in Knoxville, Tennessee.

* * *

Dr. Donald M. Hayes, assistant professor of medicine, presented a paper on "Mouse Myeloma as an Experimental Model for Myeloma Kidney" at Grand Rounds, Mount Sinai Hospital, New York City.

* * *

Dr. A. Sherrill Hudspeth, research fellow in cardiovascular surgery, presented a paper on "Transatrial Approach to Total Correction of the Tetralogy of Fallot" at the annual meeting of the American Heart Association in Cleveland, Ohio.

Dr. D. LeRoy Crandell, associate professor of anesthesiology, presented two papers at the annual meeting of the American Society of Anesthesiologists in New York City. He spoke on "The Replenishment of Catecholamine Stores in Reserpinized Dogs" and "Experimental Studies on Coronary Arterial Flow Using the Square-Wave Electromagnetic Flowmeter."

Dr. Crandell also presented a paper on "The Anesthetic Hazards of Antihypertensive Drugs" at a meeting of the Catholic Hospital Association of the United States and Canada in St. Louis; spoke on "Anesthetic Aspects of Pheochromocytoma" at a meeting of the St. Louis Society of Anesthesiologists; and presented a paper on "Newer Agents in Anesthesia" at a meeting of the Tidewater Institute of Anesthesia in Norfolk, Virginia.

* * *

The Atherosclerosis Study Group at the Bowman Gray School of Medicine has increased its research activities with two recent projects. Both projects are supported by grants from the National Institutes of Health and both involve the study of pigeons, one of the few animals that develop naturally atherosclerotic deposits or plaques very similar to those found in humans.

Dr. Robert W. Prichard, professor of pathology, is engaged in what is thought to be the first long-term research project to study the natural history of pigeon blood vessel disease and its effect on the life span of the bird. The first five years of his project will be supported by a \$180,785 research grant from the National Institutes of Health.

Dr. Thomas B. Clarkson, associate professor of experimental medicine, is involved in a three-year study aimed at determining the origin of atherosclerotic deposits and finding the reason one strain or race of pigeon is more susceptible than another to the circulatory disease.

His research, supported by a \$65,000 NIH grant, could provide valuable information relating to similar aspects of the human disease.

* * *

Dr. Henry G. Cramblett, associate professor of pediatrics and director of the virology laboratories, has started a five-year research program that could lead to the future control of a number of viruses which cause damage to the brain and central nervous system. The research is supported by a \$189,520 grant from the National Institutes of Health.

One of the main objectives of the project is to evaluate these newer polio-like viruses and to determine which viruses warrant the development of vaccines for their prevention.

His studies, which will include an estimated 90 patients per year, will be aimed at determining the type of virus causing the infection, the mechanisms involved in carrying it into the central nervous system and the long-term effects of the virus.

NEWS NOTES FROM THE DUKE UNIVERSITY MEDICAL CENTER

Dr. Barnes Woodhall, nationally known brain surgeon and dean of the Duke University Medical School, was honored by Duke-trained neurosurgeons from throughout the United States on October 11 and 12.

The surgeons celebrated Dr. Woodhall's twenty-fifth year at the Duke Medical Center by an all-day scientific program, a dinner, a tour of the Medical Center, and social events.

Dr. Woodhall has been active in professional organizations, held numerous advisory positions and written extensively for scientific journals during his 25 years at Duke. He became dean of the School of Medicine two years ago.

His current activities include chairmanship of the Special Medical Advisory Group of the Veterans Administration and membership on the executive council of the World Federation of Neurosurgical Societies. In 1963, he will take office as president of the Harvey Cushing Society, an international organization of neurosurgeons.

* * *

The appointment of three scientists who make up the nucleus of a new research group in immunogenetics at the Duke University Medical Center was announced recently by Dr. R. Taylor Cloe, Provost of the University.

Marking the establishment of a new area of research and teaching emphasis at the Medical Center, the appointees are Dr. D. Bernard Amos, professor of immunology; Dr. Eugene D. Day, associate professor of immunology; and Dr. Richard S. Metzgar, assistant professor of immunology.

Duke Medical School Dean Barnes Woodhall said that the immunogenetics research group eventually will be expanded to include some seven investigators.

Immunogenetics is concerned with the body's response to foreign tissue and includes study of reactions against cancer, grafts of normal tissue, and transfused red or white blood cells. A thorough understanding of such reactions is essential for the successful transplantation of tissues and organs from one human being to another, Dr. Woodhall noted.

Dr. Amos and his associates were engaged in cancer research at the Roswell Park Memorial Institute, Buffalo, New York, before joining the Duke faculty.

A native of Bromley, Kent, England, Dr. Amos studied at Guys Hospital Medical School, London, and was a research fellow there before coming to the United States in 1955.

Dr. Day, a native of Cobleskill, New York, holds the Ph.D. degree from the University of Delaware. He is the author of a number of articles concerned with tumor research.

Two key administrative appointments in Duke Hospital's Outpatient Department have been announced by Charles H. Frenzel, hospital superintendent.

Stanley Elwell has been named director of the department, and Harry E. Brown has been appointed to the new position of assistant director.

Elwell succeeds Ralph L. Drake, who resigned to become manager of the Nalle Clinic in Charlotte.

Prior to his new appointment, Elwell was business manager of the medical division of the Outpatient Department. Brown came to Duke in 1960 as business manager of the Outpatient Department's surgical division. He will continue to hold this position in addition to his new duties as assistant director of the department.

NEWS NOTES FROM THE UNIVERSITY OF NORTH CAROLINA SCHOOL OF MEDICINE

The University North Carolina School of Medicine has enrolled the largest freshman class in its history. A total of 75 first-year students, 70 of them entering for the first time, has brought the freshman class enrollment to its highest level.

Dr. W. Reece Berryhill, medical school dean, emphasized that the figure represented maximum capacity in the school's first-year program. Until more space is available, he said, the school cannot consider handling a freshman class of any greater size.

Seventy-one of the first-year men are North Carolinians, coming from 40 counties of the state. The additional four students came from neighboring states.

* * *

A heart specialist from West Berlin, on his way to a meeting in Mexico, stopped at the University of North Carolina School of Medicine recently to view research facilities, discuss his field with fellow scientists and deliver a lecture at North Carolina Memorial Hospital.

It was a busy stop-over for Dr. Klaus Holldack, chief of Internal Medicine at Krankenhaus Neukoeln and lecturer at the Free University, Berlin.

During the visit Dr. Holldack discussed phonocardiographic research with Dr. Ernest Craige, associate professor of medicine, and Dr. Herbert S. Harned, Jr., associate professor of pediatrics.

* * *

Dr. Richard I. Walker of the University of North Carolina has been named recipient of a \$75,000 grant from the Leukemia Society to help seek a cure for the disease that causes death to one American every 45 minutes.

Dr. Walker, instructor in hematology at the School of Medicine here, will study actions of white blood corpuscles in an attempt to gain insights that may eventually result in better treatment and a cure for leukemia.

Five University of North Carolina medical scientists attended the Markle Scholar meeting in Williamsburg, Virginia, October 24-28.

The five, all on the School of Medicine faculty, are Dr. Walter Hollander, Jr., associate professor of medicine; Dr. William Davis Huffines, assistant professor of pathology; Dr. George D. Penick, associate professor of pathology; Dr. Judson J. Van Wyk, associate professor of pediatrics; and Dr. Robert Zeppa, assistant professor of surgery.

Other Markle Scholars at the University North Carolina are Dr. John B. Graham, professor of pathology; Dr. Thomas Franklin Williams, associate professor of medicine and preventive medicine; and Dr. Isaac H. Taylor, associate professor of medicine.

* * *

Dr. Robert R. Cadmus, professor and chairman of the newly established Department of Hospital Administration in the University of North Carolina School of Medicine, has been named to the Committee on Nursing Education Facilities recently formed under the joint sponsorship of the National League for Nursing and the U. S. Public Health Service.

The committee is set up to advise the Division of Hospital and Medical Facilities in the development of a guide to be used by communities, colleges and universities, hospitals and others, in planning the facilities needed for all types of nursing education programs.

Dr. Cadmus, who assumed his duties in the Department of Hospital Administration this summer, was formerly director of North Carolina Memorial Hospital, a post he had held since 1950. In addition to his duties in the new department, he serves as consulting director of the hospital.

* * *

The official name for it—and it is the only one in North Carolina and one of the few in the South—is Laboratory for Experimental Ocular Pathology of the University of North Carolina School of Medicine.

Its purpose: to practice research on diseases of the eye, to develop new surgery for correcting certain eye diseases and injuries, and to examine diseased eyes and corneas which are sent here from hospitals and private physicians to determine what has caused blindness and what possible further effects the disease may have on the patient.

The laboratory is a part of the Division of Ophthalmology of the U. N. C. School of Medicine.

In line with the laboratory's concern with diagnostic services, it receives from throughout North Carolina and neighboring states eyes which have been removed from patients in the course of operations. Most often such operations have been for cancer, blindness, and glaucoma.

Tests in the laboratory here determine what conditions may have brought about such opera-

tions and treatment may be advised for the eye socket or for the remaining eye.

The laboratory is supported, in part, by grants from the North Carolina State Association for the Blind to the North Carolina Eye Fund, a non-profit fund at U. N. C., and special grants from the United Medical Research Foundation.

UNIVERSITY OF NORTH CAROLINA SCHOOL OF PUBLIC HEALTH

A method of protecting fish and aquatic wild life from insecticide-contaminated waters and of insuring the safety of drinking water supplies endangered by overzealous application of potent pesticides is the product of research by a University of North Carolina scientist.

Dr. Charles M. Weiss, professor in the Department of Sanitary Engineering in the University of North Carolina School of Public Health, has developed a relatively simple monitoring system to determine levels of fresh water contamination due to certain insecticides. This is accomplished by examining with a simple test the activity of "enzymes" in the brains of fish that have been exposed to the insecticides.

For several years Dr. Weiss has been engaged in research on water contamination in the Department of Sanitary Engineering. His latest findings, published in part last year, include a system which may be used to prevent the killing of fish and the pollution of recreational and drinking water sources, particularly where certain classes of insecticides have been used to control gnats, mosquitoes, blackflies, agricultural pests, and other insects.

Because of recent excitement about Rachel Carson's new book, "Silent Spring," Dr. Weiss's findings inadvertently will be entered in an enlarging national debate.

THE NATIONAL FOUNDATION

North Carolina March of Dimes for 1963

Wendell H. Eysenbach of Winston-Salem will serve as North Carolina State chairman for the 1963 March of Dimes, it was announced recently by Basil O'Connor, president of The National Foundation.

Mr. Eysenbach will organize and coordinate the efforts of thousands of volunteers January 2-31 in the twenty-fifth Anniversary March of Dimes appeal to "Give For The Life of a Child" disabled by birth defects, arthritis, or polio.

Contributions to the March of Dimes support a wide-ranging research program to find causes and preventives for these tragic cripples, in addition to medical care and rehabilitation.

Mr. Eysenbach explained that, in the only voluntary health agency program of its kind, the March of Dimes is establishing special treatment

centers to provide expert medical care in their home communities for children with birth defects, arthritis, and polio.

"Our ultimate goal," the chairman added, "is to overcome these diseases—as in polio—through the partnership of scientists working with the American people."

FORSYTH COUNTY MEDICAL SOCIETY

The Forsyth County Medical Society met at the Robert E. Lee Hotel in Winston-Salem on November 13. Mr. Arnold Streich of the Legal Division of the American Medical Association was guest speaker.

AMERICAN MEDICAL ASSOCIATION

The Council on Scientific Assembly invites physicians to submit titles and brief abstracts of scientific papers they wish to deliver at the 1963 annual meeting of the American Medical Association, which will be held in Atlantic City, June 16-20. The deadline is December 15.

The Third Multiple Discipline Research Forum will be an important part of the A.M.A. Scientific Assembly in Atlantic City. It will be held for three days and the Forum will be limited to reports, eight minutes in length, of original investigation of fundamental problems in medicine and medical practice. The deadline for Research Forum abstracts is February 1, 1963.

Dr. Meneely also announced that the deadline for space in the Scientific Exhibit at the Atlantic City meeting is January 9, 1963.

The deadline for receipt of application forms for the presentation of films on the Motion Picture Program for that meeting is January 9, 1963.

Physicians who wish to participate in the Atlantic City scientific program and desire information are invited to write to: Dr. George R. Meneely, Secretary, Council on Scientific Assembly, American Medical Association, 535 North Dearborn St., Chicago 10, Illinois.

* * *

Hugh H. Hussey, M.D., dean of Georgetown University School of Medicine, Washington, D. C., and chairman of the American Medical Association's Board of Trustees, has been appointed director of the A.M.A.'s Division of Scientific Activities.

Dr. Hussey's appointment was announced by F. J. L. Blasingame, M.D., executive vice president of the A.M.A.

Dr. Hussey, a native of Washington, D. C., and a graduate of the medical school of which he is dean, will resign from the Board of Trustees later this year and assume his new duties in 1963 at such time as he can be relieved of his responsibilities as dean, Dr. Blasingame said.

As director of the Division of Scientific Activities, Dr. Hussey will administer the programs of seven departments with more than 130 employees and an annual budget in excess of \$2,000,000. These departments include Foods and Nutrition, Drugs, Medical Physics and Rehabilitation, Medical Education and Hospitals, Nursing, Scientific Assembly and Advertising Evaluation.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The next scheduled examination (Part II), oral and clinical, will be conducted for all candidates at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board, April 20-May 4, 1963. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who have participated in the Part I examination will be notified of their eligibility for the Part II examination as soon as possible.

Current Bulletins of the American Board of Obstetrics and Gynecology outlining the requirements for application, may be obtained by writing to the Secretary. All prospective candidates are urged to review the current requirements before applying for Board examination.


INDUSTRIAL MEDICAL ASSOCIATION

The next examination for Certification in Occupational Medicine will be held March 16, 17 and 18, it has been announced by the American Board of Preventive Medicine. The examination has been scheduled at the Sheraton-Park Hotel in Washington, D. C., preceding the annual meeting of the Industrial Medical Association which will be held at the same hotel March 18-21. Applications for certification should be sent to Tom F. Wayne, M.D., Secretary-Treasurer, American Board of Preventive Medicine, 4219 Chester Avenue, Philadelphia 4, Pennsylvania.

AMERICAN COLLEGE OF GASTROENTEROLOGY

Dr. Robert R. Bartunek, Cleveland, Ohio, was chosen as president-elect of the American College of Gastroenterology at its annual meeting held recently in Chicago. He will assume the presidency at the next annual meeting, to be held in Washington, D. C. in October of 1963.

Dr. Bartunek is a Diplomate of the American Board of Internal Medicine, Senior Clinical Instructor in Medicine at Western Reserve University and Director of Gastroenterology at St. Alexis and St. Vincent Charity Hospitals, all in Cleveland.



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VETERANS ADMINISTRATION

One out of five mouth cancers is now unsuspected on oral examination by dentists but could be detected by use of a simple new smear test, Veterans Administration research indicates.

The study by 13 VA hospitals and outpatient clinics also shows the test can detect mouth cancer at a very early stage, according to Dr. Henry C. Sandler, chief of dental service at the Brooklyn, New York, VA hospital and chairman of the cooperative study.

He said a large proportion of these deaths is due to delay in finding the cancer until too late for effective treatment. However, when the primary mouth cancer is in its earliest stages, nine out of ten patients are cured by prompt treatment, according to Dr. Sandler.

Participating in the cooperative research were the Brooklyn, New York City, Bronx, Montrose, and Buffalo, N. Y., VA hospitals; the Brooklyn, New York, VA outpatient clinic and the outpatient clinic of the New York City VA regional office; the VA hospitals in East Orange New Jersey, Philadelphia, Pennsylvania, West Haven, Connecticut, Wood (Milwaukee), Wisconsin, and Tuskegee, Alabama, and the outpatient clinic at the Veterans Benefits Office in Washington, D. C.

JOINT BLOOD COUNCIL

Having successfully achieved its major goal of coordination the Joint Blood Council, Inc., is being dissolved.

Within the past seven years a national peacetime blood program of major significance has been worked out under the leadership of the Council. The impetus created by the Joint Blood Council's Member Institutions in this venture assures that blood and its derivatives will be readily available in the future for all who need them. In fact, the work of the Council has been carried out so well that coordination of the existing blood programs can now be realized without the existence of a separate corporation.

"It is astonishing that so much has been done in such a short time by and through the efforts and influence of the Council" said Dr. Gunnar Gundersen, the Council's president. He stated also that "as a past-president of the American Medical Association, I can assure you that we are proud of the part it played in forming the Council."

Other laudatory messages are being received at the Joint Blood Council's headquarters in Washington, D. C., indicating a desire to continue the objectives and standards established by the Council.



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1. Murphy, H. L. and Klasson, D. H. N. Y. State J. Med. 57:1908 1957

VETERANS ADMINISTRATION

The University of Havana School of Medicine in Exile and the Cuban Medical Association in Exile have presented a citation of commendation to the Veterans Administration as one segment of the American medical profession which has enabled them to place their professional skills once more at the service of humanity.

During the past year or more some 1200 destitute self-exiled Cuban physicians have fled to the United States, entering through the Port of Miami. To date the VA has placed 59 of the most competent of the physicians in VA hospitals across the nation. Another 25 processed by the VA have accepted employment with the Public Health Service and with universities. Others have dropped out of the program for various reasons. Placement of the remaining 300 awaits results of efforts to improve their English.

The citation concludes with these statements:

... As a result [of the VA effort] the free world has seen how democracy reacts to meet the problems generated by the forces of Communism. The depressed were given a new outlook, the bitter were given an opportunity to generate new energies, and the resources of the mind were freed from the slavery of thought control."

(BULLETIN BOARD CONTINUED ON PAGE 600)

The Month in Washington

A Public Health Service study of possible links between cigarette smoking and lung cancer got under way with appointment of a 10-member advisory committee including eight physicians from the academic field.

Dr. Luther L. Terry, Surgeon General of the PHS and chairman of the committee, said he selected the 10 members on the basis of geographic distribution and balance among professional disciplines, scientific objectivity, competence in special fields of interest, ability to think broadly outside of one particular field of interest, and ability to critically analyze a point of view.

In addition to being a committee member, Dr. Stanhope Bayne-Jones also is serving as a special consultant to the committee staff. He is a former dean of the Yale School of Medicine and a former president of the American Society of Pathology and Bacteriology.

In the first phase of its activity, the committee is making a comprehensive review

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of all available data on smoking and other factors in the environment that may affect health. It is expected that this review will be completed by next summer.

The second phase of the study will concern recommendations for action. No decision on how the second phase is to be conducted will be made until the first phase has been completed.

Soon after appointment of the committee, the National Cancer Institute under PHS issued a new booklet "Cancer Cause and Prevention" which referred to the conclusion reached by the PHS in 1959 that smoking is the principal reason for the steep rise in lung cancer cases.

The booklet discusses cancer as a preventable disease. It describes environmental and personal factors involved in the causation of cancer, and occupational cancer hazards that to some extent may be avoided. It goes into the problems of air pollution, radiation exposure, and food additives.

The booklet points out that as the older age group in the population increases, more people are living long enough to develop cancer induced by exposure to a causative agent earlier in life. Such cancers may take as long as 40 years to appear, it says.

"Thus," the publication concludes, "mortality from malignant disease in the future can be reduced by continuous identification and eradication of cancer hazards."

* * *

The Food and Drug Administration was criticized as to both policies and operation by a Citizens Advisory Committee and some members of Congress.

A special advisory committee—appointed by the Secretary of Health, Education and Welfare and headed by Dr. George Y. Harvey, a political science lecturer at the University of Missouri—said the FDA had fallen short in carrying out its responsibility of protecting the American public against unsafe drugs, therapeutic devices, and foods.

The FDA came in for even sharper criticism from Senator Hubert H. Humphrey (D., Minn.) who indicated his Senate Government Operations Subcommittee would hold

hearings in December on the agency. He charged the FDA lacks the ability and competence to carry out the new drug law effectively.

He accused the agency of failure to keep in touch with other government health projects and outside experts.

"Drugs have been approved which FDA now admits should never have been approved," Humphrey said. "Drugs have been kept on the market long after FDA admits they should have been eliminated from the market."

The 16 doctors, educators, businessmen and consumers on the advisory committee reported to HEW Secretary Anthony J. Celebrezze after a year-long study of FDA programs and procedures.

Making 10 major recommendations for overhauling FDA's approach to consumer protection, the panel said the federal agency had been relying on "after-the-fact enforcement" of regulations rather than taking more preventive action.

Celebrezze promised that the report would get a "most careful analysis." He said steps already were being taken to assure the public adequate protection through administrative action and under the new drug safety law recently passed by Congress.

In Memoriam

Neale Summers Stirewalt, M.D.

The story of the life of Neale Summers Stirewalt is an inspiration to anyone who devotes himself to the practice of medicine.

Born at the Stirewalt home place, Mill Hill, in Cabarrus County, North Carolina, to Edward and Ella Summers Stirewalt on March 7, 1882, of German ancestry, his days were full of adventure far beyond the knowledge of any who knew him casually.

Dr. Stirewalt's ancestors came to this country from their native Germany early in the development of the United States, by way of Pennsylvania. They found a home at this doctor's birth place which still stands and for years was a residence famed for its beauty.

After the death of his grandparents Dr. Stirewalt's parents moved to Statesville, where young

Neale received his early education, with college preparatory work in a private school in that town. In 1901 he entered Davidson College, graduating with honors in 1905. It is noted that in 1955 he was one of the small group attending the 50th year re-union of this class. In 1909 Dr. Stirewalt graduated from the University of Maryland and promptly entered a rural practice in York County, South Carolina. In his day it was considered wise to spend a couple of years in this way before settling in a permanent location.

While practicing in York County, Neale Stirewalt had the good fortune to meet Miss Evelyn Fraser of Sumter, South Carolina, at the time teaching in a near-by rural school in York County. It was not, however, until the young doctor had accepted a position in Greensboro as assistant to Dr. Turner, Medical Director of the Southern Life and Trust Company, that he married the charming Miss Fraser. Later, Dr. Stirewalt was associated, for a time, with the Pilot Life Insurance Company.

In 1918 he was called into military service with the army, serving for a short time at Camp Wadsworth in South Carolina and for the next two years at Camp Merritt, New York, and at Camp Dix, New Jersey. Most of his work was at Camp Dix, receiving the injured transported from Europe.

On leaving the service in 1920, Neale Stirewalt entered practice in Lancaster, South Carolina, moving to Kannapolis after two years. This move was in order to be near his sick mother and look after the farm. At his mother's death Dr. Stirewalt came to High Point in 1928 to continue the general practice of medicine and make a permanent home for his family. To this couple were born a son and two daughters: Edward Neale of Herndon, Virginia; Mrs. Rufus Reynolds of Greensboro, and Mrs. W. C. Dawson of Alexandria, Virginia.

During World War II, Dr. Stirewalt spent a brief period in health service at the atomic energy development at Oak Ridge, Tennessee. With that exception, he devoted himself to the general practice of medicine in High Point.

Dr. Stirewalt's professional affiliations included membership in the County Medical Society, the Eighth District Medical Society, the State Medical Society, and the American Medical Association. He was a member of the Presbyterian Church in High Point and the I. T. Mann Post 87 of the American Legion. In 1959 the Medical Staff of the High Point Memorial Hospital, of which Dr. Stirewalt was a member, gave a testimonial dinner to celebrate his 50 years of medical service.

Let it here be recorded that during his many years in the city of his choice his life was a beautiful symbol of devotion to his patients. He was a man of a retiring disposition bordering on timidity, one who was thoroughly modest in

every way and avoided ostentation. He gave himself untiringly to a good and faithful service to sick people regardless of their status. It would be difficult to find anywhere a greater champion of those in straitened economic circumstances. It is truly said that, with his gracious and courteous manner, his life was one of self sacrifice.

He passed away at the High Point Memorial Hospital, after an illness caused by carcinoma of the pancreas, on August 1, 1962 at the age of 80.

Carl S. Plumb, M.D.

Carl S. Plumb, M.D., medical director of the Olin Mathieson Chemical Corporation operations at Pisgah Forest, died of an acute coronary occlusion on October 7, 1962, in Roanoke, Virginia, at the age of 43.

Dr. Plumb was a native of Ontario, Canada, and served in the Royal Canadian Air Force during World War II. He became a naturalized citizen of the United States in 1959. He received his M.D. degree from the University of Toronto in 1952. His internship was served at the Orange Memorial Hospital, Orlando, Florida, and his residency at the Lewis-Gale Hospital in Roanoke. He received the M.P.H. degree from Yale University in 1959.

In 1955, Dr. Plumb joined the Olin industrial medical department at Pisgah Forest as assistant medical director and succeeded to the position of Medical Director in May of 1961. He was the author and co-author of a number of articles on the subject of industrial medicine.

Dr. Plumb was a fellow in the American Academy of Occupational Medicine and a member of the Aerospace Medical Association, American Public Health Association, Industrial Medical Association, Carolina Industrial Medical Association, Southern Medical Association, Medical Society of the State of North Carolina, and American Medical Association. At the time of his death he was serving as president of the Transylvania County Medical Society and as chief of staff of the Transylvania Community Hospital, Brevard. He had been an F. A. A. Aviation Medical Examiner since 1960, and had served for several years as physician for the Brevard high school football team.

VA Expands Speech Facilities

The Veterans Administration is expanding its medical service for hearing and speech disabilities of aging veterans.

To obtain audiologists and speech pathologists at the Ph.D. level, the VA offers attractive career opportunities and also will help train audiologists and speech pathologists in cooperation with universities.

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Abbreviations

C—Correspondence
 C&O—Committees and Organizations
 CPC—Clinicopathologic Conference
 PM—President's Message

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Bulletin Board

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U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Dr. Luther L. Terry, Surgeon General of the Public Health Service, stated that the Special Advisory Committee on Oral Polio Vaccine has reiterated its recommendation that Type III oral polio vaccinations be continued for pre-school and school-age children but not for adults at this time.

The recommendation was reached at a meeting of the Committee on September 15. The Committee, which met at the Service's National Institutes of Health, recommended that local communities proceed with planned mass vaccination campaigns using Types I and II of the oral vaccine for all members of the population and Type III for children.

In endorsing this recommendation Dr. Terry said: "The recommendation that Type III be confined to children has raised the question of spread from vaccinated children to adults, especially family members. The evidence does not indicate a hazard to adults exposed in this way."

* * *

A copy of the booklet "Immunization Information for International Travel," revised June, 1962, has been issued. Previous issues of the booklet and any addendums should be destroyed.

Changes in immunization requirements occurring before the next issue of the booklets will continue to be listed under the item "International Notes-Quarantine Measures" in the weekly Morbidity and Mortality Report, published by the Communicable Disease Center, Atlanta 22, Georgia. Persons not receiving this report may write to that office to be placed on the mailing list.

Additional copies of the booklet may be obtained from the Superintendent of Documents, Gov-

ernment Printing Office, Washington 25, D. C., at 25 cents a copy. There is a discount of 25 per cent for 100 or more copies delivered to the same address.

The principal revisions are included in Section 5, which contains the most current information on the immunization requirements for entrance to countries; and new yellow fever vaccination centers to which the public may be referred have been added to Section 6.

Classified Advertisement

PRACTICE AVAILABLE — Growing community of **PIKEVILLE** in need of General Practitioner. New consolidated high school. Fully equipped office available. Wayne County Memorial Hospital located in nearby Goldsboro with direct telephone service to Pikeville. Large paying practice made available due to death of local physician. For additional information call or write Mrs. J. W. Rose, Pikeville, N. C., Phone 242-6071.

Recent Books from Saunders

W. B. SAUNDERS COMPANY features the following recent books in their full page advertisement appearing elsewhere in this issue: **WARREN—SURGERY**

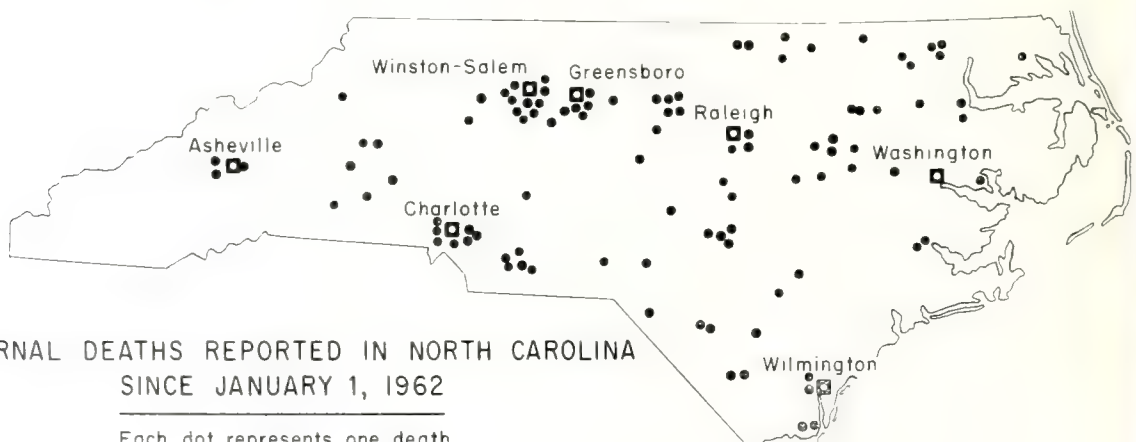
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Supplement to
**NORTH CAROLINA
MEDICAL JOURNAL**

April, 1962



TRANSACTIONS

ONE HUNDRED SEVENTH ANNUAL SESSION

of

**The Medical Society of the State
of North Carolina**

held at

Asheville, North Carolina

May 6-10, 1961

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1961
TRANSACTIONS
OF THE
MEDICAL SOCIETY
OF THE STATE OF NORTH CAROLINA

One Hundred Seventh Annual Session

held at

Asheville, North Carolina

May 6 to 10, 1961

President, Amos Neill Johnson, M.D., Garland

Secretary, John S. Rhodes, M.D., Raleigh

Executive Director, James T. Barnes, Raleigh

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RESOLUTIONS AND OTHER BUSINESS

Conjoint Session	209	House of Delegates Meetings:	
General Sessions		Sunday Afternoon	147
First	209	First Monday Afternoon	170
Second	212	Second Tuesday Afternoon	179
Third	219	Special Meeting	180
		Officers, Election of	169

OFFICERS—1961-1962

President—CLAUDE B. SQUIRES, M.D., 225 Hawthorne Lane, Charlotte
President-Elect—JOHN R. KERNODLE, M.D., Kernodle Clinic, Burlington
Past President—AMOS N. JOHNSON, M.D., Garland
First Vice-President—JOHN A. PAYNE, III, M.D., Sunbury
Second Vice-President—J. SAMUEL HOLBROOK, M.D., Davis Hospital, Statesville
Secretary—JOHN S. RHODES, M.D., 700 W. Morgan Street, Raleigh
Speaker of the House—DONALD B. KOONCE, M.D., 408 N. 11th Street, Wilmington
Vice-Speaker of the House—JOHN C. REECE, M.D., Grace Hospital, Morganton

COUNCILORS—1961-1964

First District—THOMAS P. BRINN, M.D., 118 West Market Street, Hertford
VICE COUNCILOR—QUINTON E. COOKE, M.D., 212 East High Street, Murfreesboro
Second District—LYNWOOD E. WILLIAMS, M.D., Kinston Clinic, Kinston
VICE COUNCILOR—ERNEST W. LARKIN, JR., M.D., 211 N. Market St., Washington
Third District—DEWEY H. BRIDGER, M.D., Bladenboro
VICE COUNCILOR—WILLIAM A. GREENE, M.D., 104 E. Commerce St., Whiteville
Fourth District—EDGAR T. BEDDINGFIELD, JR., M. D., P. O. Box 137, Stantonburg
VICE COUNCILOR—T. TILGHMAN HERRING, M.D., Wilson Clinic, Wilson
Fifth District—RALPH B. GARRISON, M.D., P. O. Box 71, Hamlet
VICE COUNCILOR—HARRY H. SUMMERLIN, M.D., 203 Atkinson St., Laurinburg
Sixth District—GEORGE W. PASCHAL, JR., M.D., 1110 Wake Forest Road, Raleigh
VICE COUNCILOR—RIVES W. TAYLOR, M.D., 105 College Street, Oxford
Seventh District—EDWARD S. BIVENS, M.D., Stanly County Hospital, Albemarle
VICE COUNCILOR—CHARLES L. STUCKEY, M.D., 1515 Elizabeth Ave., Charlotte
Eighth District—HARRY L. JOHNSON, M.D., P. O. Box 530, Elkin
VICE COUNCILOR—JOHN C. BURWELL, JR., M.D., 1026 Prof. Village, Greensboro
Ninth District—THOMAS L. MURPHY, M.D., 116 Rutherford St., Salisbury
VICE COUNCILOR—PAUL McN. DEATON, M.D., 766 Hartness Road, Statesville
Tenth District—WILLIAM A. SAMS, M.D., Main Street, Marshall
VICE COUNCILOR—W. OTIS DUCK, M.D., Drawer 517, Mars Hill

SECTION CHAIRMEN—1961-1962

General Practice of Medicine: GLENN BEST, M.D., Main Street, Clinton
Internal Medicine: JOSEPH S. HIATT, JR., M.D., 208 S.W. Broad Street, Southern Pines
Ophthalmology & Otolaryngology: E. HALE THORNHILL, M.D., 720 W. Jones Street, Raleigh
Surgery: JOSHUA F. B. CAMBLOS, M.D., 208 Doctors Building, Asheville
Pediatrics: RICHARD S. KELLY, JR., M.D., 1606 Morganton Road, Fayetteville
Obstetrics & Gynecology: COURTNEY D. EGERTON, M.D., 714 St. Mary's St., Raleigh
Public Health & Education: JACOB KOOMEN, M.D., State Board of Health, Raleigh
Neurology & Psychiatry: THAD J. BARRINGER, M.D., 1330 St. Mary's St., Raleigh
Radiology: OWEN W. DOYLE, M.D., 1013 Professional Village, Greensboro
Pathology: ROBERT W. PRICHARD, M.D., Bowman Gray School of Medicine, Winston-Salem
Anesthesiology: BILL JOE SWAN, M.D., 895 Arbor Lane, Concord
Orthopaedics & Traumatology: WAYNE S. MONTGOMERY, M.D., 108 Doctors Building, Asheville
Student AMA Chapters: MR. MIKE BARRINGER, Bowman Gray School of Medicine, Winston-Salem

COMPILATIONS of ANNUAL REPORTS

REPORT OF THE CONSTITUTIONAL SECRETARY

Member registration at the Annual Meeting in Raleigh May 8-11, 1960 was less than anticipated but did exceed the previous year in Asheville. A total of 848 physicians were registered. Proximity of the meeting to Medical Schools resulted in the attendance of 116 medical students.

Enrolled membership December 31, 1960 was 3,247, an increase of 36 over the previous year. Authorization has been received for an additional representative from the Society to the House of Delegates of the American Medical Association. The Executive Council, meeting in Pinehurst February 12, 1961, elected Dr. Amos N. Johnson to fill this post. Dr. George W. Paschal was elected alternate.

The action of the House of Delegates in May 1959 amending to Constitution, as it relates to life membership, resulted in some misunderstanding. By resolution of the Executive Committee, adopted by the House of Delegates in May 1960, it was held that the amendment had no application to members having attained life status prior to January 1, 1960. It was ruled that upon request, dues remitted by a life member for 1959 were subject to refund. Voluntary payment of dues by members in the life category will be accepted in support of the Society's activities. The Constitution now provides that a member to attain life status, shall have paid dues for 20 years and reached the age of 70 years.

Since the last Annual Meeting the Executive Council has had two regular and a called meeting. The first regular meeting followed the conference of officers, commissioners and

committees on October 2, 1960. At this meeting, Dr. Oscar S. Goodwin was elected to fill out the unexpired term of the late Dr. Earl W. Brian on the State Board of Health. On November 28, 1960, the Executive Council met in called meeting at Pinehurst to consider and act upon recommendations of Dr. John Kernodle's committee on Chronic Illness, previously designated to represent the Society in negotiations leading to implementation of the Kerr-Mills bill.

The second regular meeting of the Executive Council occurred on February 12, 1961 following the Conference of County Society Officers sponsored by the Committee on Public Relations in Pinehurst. Decision was made to call a meeting of the House of Delegates in Durham, February 26, 1961 at which the Society established a policy of cooperation in obtaining legislative action to implement the Kerr-Mills legislation in North Carolina to provide medical assistance for the needy elderly citizens of the State.

Members who attend the Annual Meeting in Asheville, May 7-10, 1961 will note an alteration in the General Sessions designed to assure continuity of topic discussion and to stimulate participant and spectator interest. It is crucial that physicians maintain membership in the Society and, more important, that they attend its meetings in order to give expression to views on critical issues.

The Secretary is indebted to officers, members of the Society and to all personnel attached to the Headquarters office for their spirit of cooperation and dedication to the discharge of responsibilities at hand.

Respectfully submitted,
John S. Rhodes, M. D.
Secretary

AUDITOR'S REPORT

Medical Society Of The State Of North Carolina, Incorporated
Raleigh, North Carolina
12 Months Ended December 31, 1960

OFFICERS

Dr. Amos N. Johnson, President	Garland, N. C.
Dr. Claude B. Squires, President-Elect	Charlotte, N. C.
Dr. John C. Reece, Past President	Morganton, N. C.
Dr. Theodore S. Raiford, First Vice-President	Asheville, N. C.
Dr. Charles T. Wilkinson, Second Vice-President	Wake Forest, N. C.
Dr. John S. Rhodes, Secretary	Raleigh, N. C.
Mr. James T. Barnes, Executive Director	Raleigh, N. C.
Dr. Donald B. Koonce, Speaker—House of Delegates	Wilmington, N. C.
Dr. Edward W. Schoenheit, Vice Speaker—House of Delegates	Asheville, N. C.

Chairman and Members of the Finance Committee
Medical Society of the State of North Carolina, Inc.,
Raleigh, North Carolina
Gentlemen:

Pursuant to engagement, we have audited the books and records of the Medical Society of the State of North Carolina, Inc., Raleigh, North Carolina, for the period beginning January 1, 1960, and ending December 31, 1960, and present herewith our report.

Exhibits And Schedules

In presenting to you our findings, as the result of the audit, we have prepared four Exhibits and three Schedules, as outlined in the Index, which are attached hereto as a part of this report.

Balance Sheet—Exhibit "A":

The first statement is a list of the Assets, Liabilities, Reserves and Net Worth, which we designate as Balance Sheet, December 31, 1960, Exhibit "A". This statement has been divided into two sections. One contains the Current Operating Fund, which represents the Current Assets, Liabilities and Reserves. The other has been designated as a Capital or non-Operating Fund containing the office equipment, real estate, and capital stock owned and used by the Medical Society at estimated values established in a prior year, plus actual cost for purchases during the last ten years.

The Cash on Hand and in Bank is made up of \$50.00 Petty Cash Fund, \$2.06 Cash on Hand and \$10,806.80 cash in the First-Citizens Bank and Trust Company, Raleigh, North Carolina. The Cash in Bank was verified through a reconciliation of the balances as shown by the records of the Medical Society with a certificate which was obtained independently from the bank. This reconciliation is shown in detail in Schedule—1 of the report.

Accounts Receivable—Regular in the amount of \$1,487.76 are shown on the Balance Sheet and, in the main, represents the total of several uncollected balances due for local advertising in the State Medical Journal. Verifications were forwarded on these accounts and all differences reported were satisfactorily cleared up.

Accounts Receivable—National Advertising in the

amount of \$8,580.44 represent November and December, 1960, National Advertising in the State Medical Journal. These amounts were confirmed directly with the State Medical Journal Advertising Bureau. The November amount was received in January, 1961.

Due From Members—Dues in the amount of \$125.00 represents amounts due for State and National Dues at December 31, 1960 and which were received in January, 1961.

Prepaid Insurance in the amount of \$468.75 represents a three year premium paid on the Commercial Blanket Bond covering the faithful performance of Mr. James T. Barnes, Executive Director of the Society.

Prepaid Supplies and Capital Assets in the amount of \$2,052.13 represent supplies and furniture received and on hand at December 31, 1960, but applicable to the operations of the year 1961:

Raleigh Paper Company	\$ 806.48
Central Motor Lines	29.57
Underwood Corporation	37.20
Business Envelope Manufacturers	385.04
Gray & Creech, Inc.	361.61
Total Supplies	\$1,619.90
Utility Stationery Stores (Furniture) ..	432.23
TOTAL	\$2,052.13

The investment in Mutual Fund stocks is shown at cost value of \$102,871.16. This represents the cost of 9,558.408 shares at \$10.76 per share. During the year under audit \$49,181.28 was invested. This is \$25,431.03 more than the excess of revenue over expenses for the period.

The real estate, capital stock, and office equipment and furniture shown on the Balance Sheet in the amount of \$52,797.60 is listed in detail in Schedule—2. This represents an estimate made in a prior year and adjusted for purchases made during the last ten years. The items shown herein represent cost value of the equipment of the Medical Society as no depreciation is recognized. As there were no liabilities outstanding against this equipment, we have shown the entire amount as Net Worth—Capital Fund—in the Balance Sheet.

Under the "Liabilities" section we have listed

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Speaker, President Johnson, Members of the House of Delegates, distinguished Guests and Friends . . .

These are significant times for medicine! Sixty years ago I was born in this State of these United States in a setting complete in humbleness, surrounded only by what protective forces a benign nature could bestow upon my school-teacher-parents, turned farmers because the economy was so unrealistic that to carry on a growing family and hold onto intellectual ideas of progress was then futile. Our community had no medicine and communications, involving miles, equaled difficulties which not even continents offer today. In the interim *medicine*, and the care which it has provided over this single century now encompasses an excellence over the face of the earth, and particularly here in America. Despite this expansive progress 1,500 elderly are reported to have braved a downpour in New York two weeks ago and stood in assembly to boo and heckle notable physicians while they presented views on how medicine would hope to continue to serve and provide medical care to the senior citizens of our nation. It is said they also stood and cheered Adolf Held, a moderator recruited from the leadership of a notable New York labor union which has been famous for its infiltration by subversive leadership from abroad. Believe me he created in that act a grade of medicine which you as doctors will too soon reckon. One may doubt you can resist such inroads of influence which will surely generate bad medicine and engulf you and your way in medicine. To extricate to bring to a high plane of safety most surely will call for high leadership in medicine in the months and years to come. One would hope that as men, as doctors, as the keepers of all that is good in medicine you will rise to a new sense of your responsibilities and opportunities here in this 107th Annual Sessions and that you will assume that leadership and apply that degree of concern for the health of human kind which could take medicine out of this growing morass of objection and public rejection. But so much of philosophy.

This Report constitutes the "two-hat"

accounting of my stewardship for the activity period 1960 to April 20, 1961:

First it is my duty to report as Treasurer:

The year 1960 was a good year as is recognized by Dr. Wayne Benton as your Finance Chairman. In respect to income estimates established in the summer of 1959 our experienced income exceeded each item vital to the Budget, excepting only the Annual Banquet estimate of the attendance which is in the membership control and unanticipated revenue which is something of a "catch all" and which is not vital. The income exceeded the Budget estimates by about ten per cent. This accomplishment was realized despite the fact we refunded more than \$5,000 in 1959-1960 Life Membership dues collected under By-Laws direction and later voided by action of the Executive Council with approval of the House of Delegates.

In respect to expenditures, two budget excesses occurred largely involving the headquarters expense, particularly in an unanticipated rent item when we gained much needed space (in the present low-rent building) and in the costs of communications particularly the telephone installations and expansion of services.

All other budget accounts were in substantial balance or expenditures were held under the Budget estimates authorized by the Executive Council in the fall of 1959. May we remark that total expenditures were approximately 2.5% under those authorized so that the Treasury reflected an operating excess of income over expenditures of the sum of \$25,246.96 less capital expenditures for equipment resulting in a net income from operations of \$23,750.25; so this was one of our best years fiscally. Journal revenue was at an all high and exhibit sales was at an all time peak. Contributions to the Journal finance per member in 1960 was about 49 cents, despite a diminishment in advertising due to political influences in the late months of the year and promises to continue into 1961. It is attested that all revenue right-fully accruing has been received and properly accounted for on the books of the Society.

The Audit Report of A. T. Allen and Company, Certified Public Accountants appears on page 2 and constitutes a part of this report. It can be reviewed in detail at page two to seven of the 1961 Annual Compilation of Annual Reports which each delegate was furnished last week.

The Society should know and have record of the honors and obligations of your Executive Director related to other organizations during the year.

First it has been a distinction of the first order to have been elected in 1959 and to have served 1960-61 as President of the Medical Society Executives Association which represents 300 men and women employed as medical executives in this nation. This has been a time-effort consuming responsibility we sense has been fulfilled with a properness and with good reflection on your Society as a group.

Secondly in 1959 the North Carolina Health Council elected me to its Presidency which will terminate late in 1961. This too has been a challenge and has taken time which brings good reflection on the Medical Society for the leadership so involved.

Other civic-extra-curricula activities, many directed to equal causes to medicine, have demanded and been given time. These experiences are in line with the policy the Society established in 1949 by which your staff executive has been authorized to engage in such salutary activities.

Respectfully submitted,
James T. Barnes, Treasurer
Medical Society of the State of
North Carolina

Raleigh, North Carolina
April 28, 1961

Mr. Speaker, Gentlemen of the Executive Council and Members of the House of Delegates:

It is my duty to further report to you on the activities under my stewardship of your affairs in and through the Headquarters and its staff.

First we are in sound financial status with land and investment reserves listed in excess of \$125,000.00 with good evidences that both are sound and gainful, even should

inflationary influences continue to accrue. It has taken considerable effort to gain this status for you. It is proper that we should have done so. We hope the reserve phase of fiscal standing continues to improve. We think it will.

This has been a remarkable "harness" year working with President Amos Neil Johnson and his good secretary, Mrs. Johnson. No stint of time or effort nor of intelligence has hindered your works this year and suffice it to observe he has communicated the activities of his regime to you more fully than I have observed in sixteen presidential regimes which I have carefully followed and observed. He has carefully exercised his mind and his executive capacity to provoke needed considerations and to communicate these and bring them to the leaders, committees, Executive Council and House of Delegates for your concern, your consideration and your action. No man could do more in the exemplification of leadership. To follow in his wake and to do his work and biddings has been a pleasant task for me and your headquarters staff. Sometimes we have scarcely seen the way through, but we have always come through and we now scarcely leap upon the threshold of readiness for this Annual Sessions. But we are here and our job has been done.

In facing a new year we look upon the past year to find a remarkable period of activity. Perhaps it has not all been productive of good for medicine, but we strive to have it so and we see progress written into the record of the past year. Moreover, we see goals a little clearer and we find the determination to yet make progress on old goals unattained and the coverage to tackle new goods and new tasks which will be set for us here in the deliberations and out of the actions of the House and the Council meeting in this new decade. Some of us, due to catch up of times, must wane in these next years, but must find application of the strengths of mind and heart in the facing and the solution of problems at our door and which are sure to knock thereon forever more. Let's strengthen our affinities so that we may be stronger for these tasks and courageous enough to find departures to

paths that will lead medicine down the way of salvation, success and to the eternal gain of human kind through his health guarded over by efficient and good medicine. This people will want and this people will protect if we communicate over good images sufficient in the future.

The following constitutes, a report measurable of our efforts and accomplishments of the entire headquarters staff:

A. Incoming items of processible mail	22,734
B. Letters, personal and general, dispatched	45,623
C. Public Relation Bulletins, dispatched	*29,700
D. Total mail items prepared and dispatched	75,323
E. Telephone Communications, local, prepaid and toll	3,060
F. Telegrams, received and dispatched	136
G. Reports, formal, miscellaneous, agenda, transmittals and memoranda	5,440
H. Review of literature, documents and reports (interpretive)	642
I. Personal conferences	780
J. Meetings attended	395
K. Releases to press	5,052
L. Releases to radio-television	

Included next above

*Additional to item B.

There was a gain of membership 1960 over 1959 of 36 members. The total at December 1, 1960 was 3,247, but we carried much over 3,300 during the year 1960. We continue to mark history in this respect. For 1961 the prospects are latent for increase though our progress will require effort. Accumulative of current new members, new members pending completion of registration, old members yet to renew and members with conclusive 1961 standing the total now reaches 3,343. The record of renewals for 1961 needs member-action improvement.

We can report that as of December 31, 1960, we recorded in excess of 3,000 American Medical Association members in good standing and thereby have been awarded a

fourth A.M.A. Delegate. We must hold that position as an achievement of note and worth to North Carolina medicine.

This has been a serious legislative year what with a regular terminating Congressional term a special session and now a new Congress all fraught with tremendous pressures for health and medical programs of varied implications. Our successes here in North Carolina is to be remarked upon with a single exception the portents of which are now revealing how right we were to have encouraged the stand of our representatives taken early in the 87th Congress. It also has been a year for our State General Assembly and legislation espoused has caused us untold expenditure of time, effort and substance in make ready and in follow through. It is ironical that being "for something" which is salutary to others is about as thankless as "being opposed" to those actions which tend to badly involve the public health. All in all our success legislative is being foretold and we hope our efforts have been good in the causes at issue.

As you will have noted from the new format of the Compilation of reports the Society has been full in activity during the year. Some acute issues have been drawn and are monitored out in considerable detail in the record for your considerations and if need be, for action in the 107th Sessions. The new format of reports and proceedings is designed to attain early record in the future of all actions so the membership can be kept closely abreast of programs, actions and progresses in the work of the Society. The undertakings are extensive and deserve to be in communication to the membership with greater degrees of promptness and efficiency. This we believe we will accomplish markedly in the next activity year.

Physician placement goes on a pace. We continue the simple formula which has characterized the effort in the past. We appear to achieve results and the Society rolls indicate our progress in replacing many of the losses sustained by death and separation as well as to gain gradually an increment in total services and medical manpower. General practice and rural practices seem to

lag and special concern might well be paid to these two factors by the best thought and collect action of the Society and its membership. It can be observed that in one generally rural located city recently a directed query for service revealed only two general practicing physicians in a roster of fifty in which county approximately 100,000 population is now served. That proportion of differential may be generating a medical image which does not sustain your relations with the public and for that reason should be your concern.

Attention is called to movements in respect to the North Carolina Medical Journal. Rising costs and yet higher rate requests for publication caused the management and the Editorial Board to consider what course to take. In the spring a production prospectus was developed and approved and these were placed with some several reputable printing establishments in late summer requesting a bid for production. These sources were well represented within and without the State. As a result more favorable bids were received and after careful consideration of many advantages the lowest in-state bid was accepted which indicates some considerable reduction in publication cost compared to former costs and much advantage in operation by placing the printing contract with a Raleigh, North Carolina firm. We can promptly observe results in reduced cost, satisfaction to agencies and advertisers with running quality of their ad reproduction and surely we find the economy of time, effort and management expense to be operating favorably to the Society. While the Journal showed a marked gain in advertising volume in 1959-60 the increased income was near consumed in the production costs. Therefore, it is encouraging that despite a marked decline in advertising placed, so far, for the year 1961 due

to political implications our income related to production costs appear satisfactory. Otherwise, we should have shown an operating profit for 1961 and may yet do so depending upon the trends in advertising market. Present schedules encompasses a better coverage of proceedings records and may well relieve staff pressures to move important phases of Society work.

In conclusion we want to especially thank President Amos Johnson for his wonderful disposition to understand our problems and for the trust and confidences he has placed in us through this important period of the Society's life. It has transcended constant phases of national, state and local issues which he forever has met with determination, leadership and friendly guidance. He is in our estimation a medical statesman whose accumulated knowledges and affluences is of great importance to the Society and one would hope it be kept attached to our "tow lines." None the less we value the great impact which the present officers and Commissioners and committee leadership has manifested during the year. These will sustain the Society in the months and years to come and will constitute a comforting guidance to your headquarters staff.

The final tribute we pay to our valuable staff without whose concern with us all the year activity of the Society would have scarcely been conceived nor achieved. It is a wonderful opportunity to experience the sense of loyalty and productive concern we have found on every hand. The staff deserves your support and your full appreciation.

Respectfully submitted,

James T. Barnes
Executive Director
Medical Society of the State of
North Carolina

those accounts, expenses, etc., incurred prior to December 31, 1960, for which statements or accounts were rendered or for which payment was due.

The Accounts Payable—Trade, in the amount of \$12,125.78 represents unpaid accounts at December 31, 1960. These were confirmed 100% with the creditors by the use of positive verifications. These unpaid accounts are for Journal and Roster publication, \$5,850.83, legal fees, \$4,200.00, and other expense, \$2,074.95. Most of these items were paid during the course of the audit.

The \$112.50, Dues to be Refunded, represents State dues collected which are refundable to the members. The \$50.00, "Due American Medical Association", is 1961 A. M. A. dues collected in 1960. The \$100.00, "American Medical Association Dues In Escrow", represents dues paid to the State Society but which cannot be remitted to the National Society at the time due to diverse disqualifying reasons. The pay roll taxes, \$146.70 for the Society's Social Security and \$920.86 for employees' Social Security and Withholding, were paid during the course of the audit. The \$47.82, "Due Hospital Savings Association", represents amount withheld from employees' salaries for hospital insurance during the last quarter of 1960 but unremitted at December 31, 1960.

The deferred credits of \$6,500.00 are for payments of \$3,320.00 received on technical exhibits space at the 1961 Convention, \$630.00 on 1961 Convention Banquet, and \$2,550.00 on 1961 membership dues. These remittances were received in 1960 and will be transferred to the income accounts in 1961.

The Reserve for Mental Hygiene of \$5,000.00 is a reserve to cover expenses and costs of the said committee in its rehabilitation work. To the balance in this account at January 1, 1960, of \$4,562.83 was added a portion of the unexpended Budget Appropriation of \$495.69 in 1960 to bring this account balance to its maximum appropriation of \$5,000.00.

The Reserve for Raymond Randolph Scholarship Fund of \$280.00 represents a reserve for the 1955 Essay Contest Winner, Raymond Randolph, Henderson, North Carolina. This amount is held in escrow for payment to the college he has chosen to attend, in accordance with the contest rules.

The Reserve for Medical Building Site represents the unexpended portion of the \$30,723.00 receipts received from the sale of Series "F" Bonds. The expended portion of this fund was \$26,104.55 and is set out in Schedule—3 of the report. This leaves a balance of \$4,618.45 not disbursed to date.

The "Net Worth" section of the Balance Sheet is comprised of two figures: \$96,541.99 being the balance of the Current Operating Fund for the year; and \$52,797.60 representing the balance of Capital Fund.

Statement of Net Worth—Exhibit "B":

The second statment is an analysis of the changes in Net Worth during the year.

The Current Operating Fund Balance was arrived

at by adding to the balance January 1, 1960, of \$72,-099.02, the amount of Net Income from operations for the current year—\$23,750.25 and Expenditures in 1960 for Capital Fund of \$1,496.71, and subtracting \$366.82 adjustment for 1959 National Advertising, leaving a balance of \$96,979.16. Then, deducting therefrom the allocation to Reserve for Mental Hygiene Committee, \$437.17, gives the balance at December 31, 1960, of \$96,541.99.

The Capital Fund Net Worth Balance is derived from adding purchases during the year from operating funds for Capital Assets in the amount of \$1,-496.71 to the balance January 1, 1960, of \$51,-300.89.

Statement of Income and Expenses—Exhibit "C":

A statement showing a budget comparison of the income and expenses for the twelve-months period is shown in Exhibit "C". This statement is, in effect a statement of operations for the year, and by examination it will be seen that the income of \$222,-211.94 exceeded the expenses of \$196,964.98 by \$25,246.96. However, there was included in the expenses \$1,496.71 in Capital Expenditures for Equipment. Eliminating these we show income from operations of \$23,750.25 which has been added to the unexpended balance of the Current Fund and shown in the Net Worth Section of the Balance Sheet.

In comparison with the Budget, actual income was more than the Budget anticipated by \$19,621.94. The main items accounting for this are \$12,656.90 more from National Journal Advertising, \$1,219.96 from Local Journal Advertising, \$2,955.00 from Sale of Exhibit space and \$3,689.88 from dividends on securities owned.

Further examination reveals that the total actual expenses were \$5,252.02 less than the budget provision. The main items accounting for this decrease are \$6,412.85 in Intra Functional Activity Budget and \$2,869.89 in the Convention Budget.

Cash Receipts and Disbursements—Exhibit "D":

A statement showing in detail the cash receipts and disbursements of the Society during the year under review is shown in Exhibit "D" which we summarize as follows:

Cash Balance January 1, 1960	\$ 31,830.35
Cash Receipts During The Year	303,075.80
Total Cash Available	\$334,906.15
Less: Disbursements During The Year:	
For Operations	\$202,201.80
To A. M. A.—Dues	71,167.50
For Capital	
Expenditures	1,496.71
Purchase of Mutual	
Fund Stocks	49,181.28
	324,047.29

Cash Balance December 31, 1960 \$ 10,858.86

We made a careful analysis of the cash transactions and, where practicable, traced the receipts to their original source. Disbursements for expenses were supported by cancelled checks and invoices issued in the regular course of business. We believe the funds have all been accounted for.

General Comments

A surety bond covering faithful performance of Mr. James T. Barnes, Executive Director, in the amount of \$50,000.00, is in force, held by the Medical Society and was examined by us. Also in force and examined by us were a Primary Commercial Blanket Honesty Bond in the amount of \$25,000.00; a fire insurance policy, with 80% co-insurance clause, covering fire loss on office equipment, books and records in the office of the Executive Director, Raleigh, North Carolina, in the amount of \$2,500.00; an Automobile Schedule Liability Policy; a Standard Workmen's Compensation and Employer's Liability Policy; and a Comprehensive General Liability Policy.

As noted under Miscellaneous Budget—Employees' Retirement System (G-11), payments of \$2,893.32 on the Pension Plan of the Society were made during the current year to Penn Mutual Life Insurance Company. At December 31, 1960, there were four employees eligible and covered under this plan. The plan became effective October 15, 1957 for employees who are full time permanent employees between the ages of twenty-five and fifty-five and have three years of continuous service if employed before October 15, 1957, or four years of continuous service if employed after October 15, 1957.

We were extended every courtesy and cooperation during the course of the audit and we experienced no trouble in obtaining the necessary information for this report.

Scope of Examination and Opinion

We have examined the balance sheet of the Medical Society of the State of North Carolina, Incorporated, as of December 31, 1960 and the related statements of income and expense and net worth for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying balance sheet and statements of income and expense and net worth present fairly the financial position of the Medical Society of the State of North Carolina, Incorporated, at December 31, 1960, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles for non-profit organizations applied on a basis consistent with that of the preceding year.

Very truly yours,

A. T. ALLEN & COMPANY,

CERTIFIED PUBLIC ACCOUNTANTS

By: A. T. Allen,

Certified Public Accountant

(SEAL)

Raleigh, N. C.

January 24, 1961

Medical Society of the State of North Carolina, Inc.

Raleigh, North Carolina

INDEX

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EXHIBIT "A"—BALANCE SHEET

December 31, 1960

ASSETS:

CURRENT OPERATING FUND:

Cash On Hand And In Banks—(Schedule—1) ..	\$ 10,858.86
Accounts Receivable—Regular ..	1,487.76
Accounts Receivable—National Advertising ..	8,580.44
Due From Members—Dues ..	125.00
Prepaid Insurance ..	468.75
Prepaid Supplies And Capital Assets ..	2,052.13
Investment In Mutual Fund Stocks ..	102,871.16

TOTAL CURRENT OPERATING FUND \$126,444.10

CAPITAL OR NON-OPERATING FUND—(SCHEDULE—3):

Real Estate ..	\$ 26,104.55
Office Furniture And Fixtures ..	26,493.05
Capital Stock, Common—State Medical Journal Advertising Bureau ..	200.00

TOTAL CAPITAL OR NON-OPERATING FUND 52,797.60

TOTAL ASSETS \$179,241.70

LIABILITIES, RESERVES AND NET WORTH:

LIABILITIES:

Accounts Payable—Trade ..	\$ 12,125.78
Dues To Be Refunded ..	112.50
Due American Medical Association ..	50.00
Due American Medical Association —Dues In Escrow ..	100.00
Federal And State Income Taxes Withheld ..	920.86
Pay Roll Taxes Payable ..	146.70
Due Hospital Savings Association ..	47.82

TOTAL LIABILITIES \$ 13,503.66

DEFERRED CREDITS:

Advance Payments On Technical Exhibit Space At 1961 Convention ..	\$ 3,320.00
Advance Payments On 1961 Convention Banquet ..	630.00
Advance Payments On 1961 Membership Dues ..	2,550.00

TOTAL DEFERRED CREDITS 6,500.00

RESERVES:

Reserve For Mental Hygiene Committee ..	\$ 5,000.00
Reserve For Raymond Randolph Scholarship Fund ..	280.00
Reserve For Medical Building Site ..	4,618.45

TOTAL RESERVES 9,898.45

NET WORTH:

Current Operating Fund (Exhibit "B") ..	\$ 96,541.99
Capital Fund—(Exhibit "B") ..	52,797.60

TOTAL NET WORTH 149,339.59

TOTAL LIABILITIES, RESERVES AND NET WORTH \$179,241.70

EXHIBIT "B"—STATEMENT OF NET WORTH

12 Months Ended December 31, 1960

CURRENT OPERATING FUND:

Balance January 1, 1960 ..	\$ 72,099.02
ADD: Net Income From Operations—	
Exhibit "C" ..	\$23,750.25
Expenditures For Capital Fund ..	1,496.71
LESS: Adjustment for National Advertising Account for 1959 ..	

Total \$ 96,979.16

LESS: Allocation To Reserve For Mental Hygiene .. 437.17

TOTAL CURRENT OPERATING FUND—TO EXHIBIT "A" \$ 96,541.99

CAPITAL FUND:

Balance January 1, 1960 ..	\$ 51,300.89
ADD: Purchases Made Through Current Fund ..	1,496.71

TOTAL CAPITAL FUND—TO EXHIBIT "A" 52,797.60

TOTAL NET WORTH—DECEMBER 31, 1960 \$149,339.59

EXHIBIT "C"—STATEMENT OF INCOME AND EXPENSES

12 Months Ended December 31, 1960

	Budget Provision	Actual	Difference
INCOME:			
Membership Dues—Current and Prior Years ..	\$140,000.00	\$140,195.00	\$ 195.00
Interest on Government Bonds ..	140.00	140.00	-0-
Sale of Exhibit Space ..	16,000.00	18,955.00	2,955.00
Journal Advertising—Local ..	4,800.00	6,019.96	1,219.96
Journal Advertising—National ..	35,000.00	47,656.90	12,656.90
Journal Subscription and Sale of Rosters ..	900.00	945.81	45.81

Author's Contributions to Cost of Cuts	300.00	461.72	161.72
Commission (1%) From A. M. A. for Dues Collected	650.00	701.50	51.50
Revenue Unexpected	1,200.00	355.17 (	844.83)
Ticket Sales—1960			
Convention Banquet	3,600.00	3,091.00 (	509.00)
Income From Dividends	-0-	3,689.88	3,689.88
TOTAL INCOME	\$202,590.00	\$222,211.94	\$ 19,621.94

EXPENSES:

Executive Budget:			
A-1 Expense—President	\$ 2,000.00	\$ 3,600.73 (\$	1,600.73)
A-2 Salary—Secretary	-0-	-0-	-0-
A-3 Travel—Secretary	500.00	305.43	194.57
A-4 Salary—Executive Director	11,450.00	11,450.00	-0-
A-5 Travel—Executive Director	3,100.00	3,100.00	-0-
A-6 Clerical Assistants—Office	18,226.00	18,358.96 (	132.96)
A-7 Equipment—Office	1,000.00	1,263.76 (	263.76)
A-8 Expenses—Office	6,400.00	9,409.17 (	3,009.17)
A-9 Bonding	-0-	-0-	-0-
A-10 Auditing	700.00	760.00 (	60.00)
A-11 Payroll Taxes	691.00	694.57 (	3.57)
A-12 Insurance	125.00	239.41 (	114.41)
A-13 Membership Record System	48.00	12.36	35.64
A-14 Publications, Reports and Executive Aids	100.00	213.51 (	113.51)
A-15 Insurable—Interest Insurance and Retirement Plans	1,371.00	1,370.80	.20
Total Executive Budget	\$ 45,711.00	\$ 50,778.70 (\$	5,067.70)
Journal Budget:			
B-1 Publication of Journal	\$ 44,000.00	\$ 43,842.47	\$ 157.53
B-2 Cuts for Journal	500.00	808.64 (	308.64)
B-3 Salary—Editor	2,310.00	2,310.00	-0-
B-4 Salary—Assistant Editor	3,600.00	3,600.00	-0-
B-5 Expenses—Editorial Office	400.00	310.56	89.44
B-6 Expenses—Business Manager's Office	300.00	338.47 (	38.47)
B-7 Equipment—Business Manager's Office	200.00	-0-	200.00
B-8 Travel for Journal	200.00	-0-	200.00
B-9 Payroll Taxes	178.00	177.36	.64
B-10 Refunds, Subscriptions, Etc.	30.00	-0-	30.00
B-11 Publication of Roster	3,200.00	2,694.32	505.68
B-12 Sales Tax on Journal and Roster Sales	475.00	347.04	127.96
B-13 Transaction	3,000.00	5,466.87 (	2,466.87)
Total Journal Budget	\$ 58,393.00	\$ 59,895.73 (\$	1,502.73)
Intra-Functional Activity Budget:			
C-1 Expenses—Executive Council	\$ 2,500.00	\$ 1,468.37	\$ 1,031.63
C-2 Expenses—Councilors	400.00	28.79	371.21
C-3 Expenses—Legislative Committee	1,000.00	3,179.25 (	2,179.25)
C-4 Expenses—Maternal Health Committee	2,800.00	2,802.31 (	2.31)
C-5 Expenses—Cancer Committee	-0-	-0-	-0-
C-6 Expenses—Convention Arrangements Committee	-0-	31.00 (	31.00)
C-7 Expenses—Scientific Exhibits Committee	210.00	101.25	108.75
C-8 Expenses—Mental Health Committee	500.00	4.31	495.69
C-9 Expenses—Grievances Committee	1,000.00	356.03	643.97
C-10 Expenses—Chronic Illness Committee	1,000.00	1,299.42 (	299.42)
C-11 Expenses—Committees in General	2,000.00	2,236.92 (	236.92)
C-12 Expenses—Anesthesia Study Committee	300.00	-0-	300.00
C-13 Expenses—Occupational Health Committee	600.00	640.24 (	40.24)
C-14 Expenses—Professional Liability Insurance Committee	150.00	6.18	143.82
C-15 Expenses—Child Health Committee	1,182.00	847.53	334.47
C-16 Expenses—Negotiations Committee	3,000.00	461.46	2,538.54
C-17 Expenses—Student A. M. A. Committee	750.00	240.30	509.70
C-18 Expenses—Military and Emergency Medical Service Committee	300.00	51.00	249.00
C-19 Expenses—Industrial Commission Committee	300.00	134.47	165.53
C-20 Expenses—Constitution and By-Laws Committee	1,000.00	403.65	596.35
C-21 Expenses—Medical Credit Bureaus Committee	500.00	106.88	393.12
C-22 Expenses—Public Welfare Dept. Advisory Committee	72.00	4.56	67.44
C-23 Expenses—Medical Society Facility Committee	750.00	-0-	750.00
C-24 Expenses—Hospital and Professional Relations Committee	50.00	1.16	48.84
C-25 Expenses—Nursing Committee	50.00	-0-	50.00
C-26 Expenses—Medical—Legal Committee	300.00	362.57 (	62.57)

C-27 Expenses—School Health Committee	500.00	33.50	466.50
Total Intra-Functional Activity Budget	\$ 21,214.00	\$ 14,801.15	\$ 6,412.85
Extra Functional Activity Budget:			
D-1 Expense of A. M. A. Delegates	\$ 2,700.00	\$ 1,333.79	\$ 1,366.21
D-2 Conference Dues	200.00	127.50	72.50
D-3 Woman's Auxiliary	950.00	941.54	8.46
D-4 Expense of Delegates— A. M. A. Regional Conference	100.00	-0-	100.00
D-5 Expense of S. A. M. A. Delegates	500.00	1,145.40 (	645.40)
D-6 A. M. E. F.	160.00	296.99 (	136.99)
Total Extra Functional Activity Budget	\$ 4,610.00	\$ 3,845.22	\$ 764.78
Public Relations Budget:			
E-1 Salary—Assistant for Public Relations	\$ 9,430.00	\$ 9,430.00	\$ -0-
E-2 Travel Assistant for Public Relations	1,800.00	1,320.13	479.87
E-3 Travel—Committee Chairman	300.00	-0-	300.00
E-4 Clerical Assistant—Office	2,700.00	2,635.69	64.31
E-5 Equipment—Office	1,000.00	232.95	767.05
E-6 Expense—Office	3,000.00	5,113.92 (	2,113.92)
E-7 Taxes—Payroll	200.00	223.03 (	23.03)
E-8 Publications and Executive Aids	100.00	130.95 (	30.95)
E-9 Audio—Visual Depiction	300.00	26.11	273.89
E-10 Educational Distributions	500.00	94.82	405.18
E-11 News and Press Releases	200.00	174.01	25.99
E-12 Public Relations Bulletin	1,800.00	1,376.09	423.91
E-13 School Physicians Conference	-0-	-0-	-0-
E-14 Exhibits and Displays	650.00	530.01	119.99
E-15 Medical Students Conference	1,000.00	1,419.74 (	419.74)
E-16 Physicians Press Conference	300.00	-0-	300.00
E-17 Public and Personified Activities	800.00	569.37	230.63
E-18 Collateral Public Relations	500.00	437.46	62.54
Total Public Relations Budget	\$ 24,580.00	\$ 23,714.28	\$ 865.72
Annual Sessions (106th) Convention Budget:			
F-1 Programs	\$ 1,700.00	\$ 1,568.99	\$ 131.01
F-2 Hotel and Auditorium Expense	3,000.00	2,299.16	700.84
F-3 Expenses—Publicity Promotion	250.00	203.16	46.84
F-4 Entertainment	800.00	708.06	91.94
F-5 Orchestra and Floor Entertainment	2,500.00	2,500.00	-0-
F-6 Guest Speakers	800.00	341.17	458.83
F-7 Banquet Speaker	250.00	20.00	230.00
F-8 Electric Amplification	350.00	-0-	350.00
F-9 Booth Installation and Supplies	5,000.00	6,607.58 (	1,607.58)
F-10 Projection Expense	500.00	312.11	187.89
F-11 Badges	300.00	110.12	189.88
F-12 Transaction Reporting Service	1,800.00	1,388.14	411.86
F-13 Rental—Extra Facilities	200.00	282.98 (	82.98)
F-14 Exhibitors Entertainment	1,100.00	1,220.81 (	120.81)
F-15 Banquet Expense	4,400.00	2,592.58	1,807.42
F-16 Police Security	500.00	425.25	74.75
Total Annual Sessions (106th) Convention Budget	\$ 23,450.00	\$ 20,580.11	\$ 2,869.89
Miscellaneous Budget:			
G-1 Previous Accounts Payable	\$ 100.00	\$ -0-	\$ 100.00
G-2 Refunds	100.00	-0-	100.00
G-3 Legal Counsel	7,500.00	4,488.97	3,011.03
G-4 Reporting (Executive Council, Etc.)	1,000.00	1,664.74 (	664.74)
G-5 President's Jewel	75.00	47.20	27.80
G-6 Awards, General Practitioner of the Year	125.00	18.75	106.25
G-7 Fifty Year Club	100.00	258.59 (	158.59)
G-8 Sections (12) Expense	100.00	-0-	100.00
G-9 Contingency and Emergency	750.00	1,393.81 (	643.81)
G-10 Organizational Survey	-0-	-0-	-0-
G-11 Employees' Retirement System	2,300.00	2,893.32 (	593.32)
G-12 Advalorem Taxes (Land)	19.00	175.56 (	156.56)
Total Miscellaneous Budget	\$ 12,169.00	\$ 10,940.94	\$ 1,228.06
Rural Health Function Budget:			
H-1 Expense—Committee Chairman	\$ 300.00	\$ 268.69	\$ 31.31
H-2 Salary—Rural Health Consultant	6,006.00	6,006.00	-0-
H-3 Travel—Rural Health Consultant	2,000.00	1,844.44	155.56
H-4 Clerical Assistant— Part Time	1,446.00	1,200.00	246.00
H-5 Taxes—Payroll	188.00	180.00	8.00
H-6 Rural Health Conferences	400.00	254.25	145.75
H-7 Office Expenses	1,000.00	2,259.29 (	1,259.29)
H-8 4-H Club Activities	400.00	396.18	3.82
H-9 Educational Displays	350.00	-0-	350.00
Total Rural Health Function Budget	\$ 12,090.00	\$ 12,408.85 (\$	318.85)
TOTAL EXPENSES	\$202,217.00	\$196,964.98	\$ 5,252.02

SUMMARY:

TOTAL INCOME	\$222,211.94
LESS: EXPENSES	
Executive Budget	\$50,778.70
Journal Budget	59,895.73
Intra-Functional Activity Budget	14,801.15
Extra-Functional Activity Budget	3,845.22
Public Relations Budget	23,714.28
Annual Sessions (106th) Convention Budget	20,580.11
Miscellaneous Budget	10,940.94
Rural Health Function Budget	12,408.85
EXCESS OF INCOME OVER EXPENSES	\$ 25,246.96
LESS: CAPITAL EXPENDITURES FROM CURRENT FUNDS	1,496.71
NET INCOME FROM OPERATIONS--TO EXHIBIT "B"	\$ 23,750.25

EXHIBIT "D"
CASH RECEIPTS AND DISBURSEMENTS
12 Months Ended December 31, 1960

RECEIPTS:
CASH RECEIVED FROM REGULAR OPERATIONS:

Members' Dues Current and Prior Years	\$141,970.00
Medical Journal Advertising--Local	6,240.23
Medical Journal Advertising--National	48,093.39
Sale of Exhibit Space--1960 Convention	15,905.00
Sale of Exhibit Space 1961 Convention	3,320.00
Medical Journal Subscriptions and Sales of Rosters	1,142.93
Author Contributions to Cost of Cuts	503.03
Commissions (1%) From AMA For Collecting National Dues	701.50
Miscellaneous Refunds	1,529.55
Miscellaneous Income	408.17
Over-Collection of Dues--Later Refunded	5,250.00
Interest on United States Government Bonds	140.00
TOTAL CASH RECEIVED FROM REGULAR OPERATIONS	\$225,203.80
AMERICAN MEDICAL ASSOCIATION--REGULAR DUES COLLECTED	70,780.00
RECEIPTS FROM UNITED STATES BONDS--PRINCIPAL	4,000.00
RECEIPTS FROM 1961 CONVENTION BANQUET	630.00
RECEIPTS FROM 1960 CONVENTION BANQUET	2,387.00
AMERICAN MEDICAL ASSOCIATION DUES IN ESCROW	75.00
TOTAL RECEIPTS	\$303,075.80
CASH BALANCES--JANUARY 1, 1960:	
First Citizens Bank & Trust Co., Raleigh, N. C.	\$ 31,780.35
Cash on Hand	50.00
TOTAL TO ACCOUNT FOR	\$334,906.15

DISBURSEMENTS:

DISBURSEMENTS FOR CURRENT OPERATIONS:	
Expenditures Executive Budget	\$ 50,746.75
Less: Capital Expenditures--Office Equipment	1,263.76
Expenditures--Journal Budget	57,761.03
Expenditures--Intra-Functional Activity Budget	15,419.24
Expenditures--Extra-Functional Activities Budget	3,349.85
Expenditures Public Relations Budget	\$ 23,775.52
Less: Capital Expenditures--Office Equipment	232.95
Expenditures--Annual Sessions (106th) Convention Budget	20,640.79
Expenditures--Miscellaneous Budget	10,059.31
Expenditures--Rural Health Function Budget	12,409.74
Refunds of Dues Over-Collected	5,250.00
Refunds of AMA Dues in Escrow	262.50
Refunds Miscellaneous	2,758.50
Payments on Scholarship Fund	320.00
Payments for Supplies and Insurance for 1961	1,215.40
Accrued Payroll Taxes--12-31-59	623.53
Accrued Hospital Insurance--12-31-59	148.39
Total	\$203,243.84
LESS: Deductions From Wages--Unpaid at 12-31-60	
Payroll Taxes	\$ 994.22
Hospital Insurance	47.82
TOTAL DISBURSEMENTS FOR	1,042.04
CURRENT OPERATIONS	\$202,201.80
PAYMENTS TO AMERICAN MEDICAL ASSOCIATION--REGULAR DUES COLLECTED	71,167.50
INVESTMENTS IN MUTUAL FUND STOCKS	49,181.28
EXPENDITURES FOR CAPITAL ASSETS	1,496.71
TOTAL DISBURSEMENTS	\$324,047.29
CASH BALANCES--DECEMBER 31, 1960:	
First Citizens Bank & Trust Co., Raleigh, N. C.	\$ 10,806.80
Cash on Hand	52.06
TOTAL TO ACCOUNT FOR	\$334,906.15

SCHEDULE-1
CASH ON HAND AND IN BANK
December 31, 1960

FIRST-CITIZENS BANK & TRUST COMPANY, RALEIGH, N. C.:	
Balance Per Bank Statement	\$13,640.15
LESS: Outstanding Checks:	
Number 8303	\$ 243.35
9003	25.00
9012	200.00
9212	15.00
9218	50.00
9314	7.50
9332	626.48
9343	44.19
9357	10.00
9367	59.42
9371	75.00
9375	14.91
9378	1,412.50
9381	25.00
9382	25.00
	2,833.35
BALANCE PER BOOKS	\$10,806.80
CASH ON HAND	2.06
PETTY CASH FUND	50.00
TOTAL CASH--TO EXHIBIT "A"	\$10,858.86

SCHEDULE-2
SCHEDULE OF CAPITAL ASSETS
December 31, 1960

OFFICE FURNITURE AND FIXTURES:

EXECUTIVE OFFICE:	
Wooden File Case--Letter Size	\$ 21.66
Typewriter Desk	25.00
Steel Office Safe	150.00
Steel File Case--Letter Size	20.00
Four Steel Card Files	35.20
Office Chair	62.55
One Desk	24.50
Steel Filing Cabinet	47.95
Office Desk	47.95
Letter File--Two Drawer	29.46
Steel Filing Cabinet	71.75
Office Chairs	40.00
Office Desk	87.29
Office Equipment--Miscellaneous	1,149.39
One (1) Telephone Table--Wooden	15.45
Two Pairs 12" x 38" C. S. Vents and Brackets	8.77
One (1) Desk Lamp	10.26
Two (2) Master Model Audiographs and Attachments	725.67
One (1) Map of Greater Carolinas	37.50
Two (2) Double Files 3" x 5"	11.86
One (1) Remington Electric Deluxe Typewriter	337.90
Three (3) Pendaflex Frames (Installed)	5.57
Two (2) Gray Steel Cabinets	103.00
Three (3) Transfer Files	11.89
One (1) Spec. D. Outfit File	7.25
Two (2) Legal Filing Cabinets	19.90
One (1) Filing Shelf	2.50
Plywood Carrying Case for Audiograph	17.00
Map Framed	3.61
Charter Framed	2.57
Cash Box	2.79
Steel Desk	158.98
Three (3) Desk Trays With Stackers	8.57
Waste Basket	1.40
Large Chair Mat	9.27
Glass Desk Top	11.68
Stenograph and Tripod	100.70
Four Drawer Steel Filing Cabinet	78.03
Four Pendaflex Steel Frames (Installed)	7.42
Postal Scale	6.50
Numbering Machine	14.88
Filing Stool	11.23
Bookcase	63.86
Remington Rand Electric Adding Machine	215.01
Metal Storage Cabinet	78.28
Metal Filing Cabinet	92.76
Two (2) Cabinet Shelves (Installed)	10.30
Metal Cash Box	2.32
Pro Rata Share of Cost of Mimeograph Machine	337.47
Typewriter Table	21.00
Metal Correspondence Separator	6.18
Metal File and Sections	68.55
Two (2) Typewriters--Large Type (Bulletin)	321.23
Kardex File and Parts	1,842.36
Catalogue Case	20.00
Metal File and Frames	93.07
Electric Typewriter	477.00
Secretarial Foot Control	25.75
Three (3) Transfer Files	16.23
Junior Pendaflex File	22.87
Book Case Section	26.25
Remington Electric Typewriter	290.30
Swivel Chair and Arm Chair	74.48
Audiograph Converter	28.84
Pendaflex File	5.88
Used Desk and (2) Files	281.43
De Jur Camera With Flash Attachment and Case	100.44
Audiograph Machine--Used	300.00
Flight Bag	38.31

Three (3) Box Files	9.42	Pro Rata Share of Cost—A. B. Dick	
Portable Lectern	29.93	Offset Duplicator	1,602.26
Metal File	114.33	Pro Rata Portion of Postage Mailing Machine	427.85
Checkwriter—Paymaster	101.48	Pro Rata Portion of Robotypewriter	360.50
Desk and Chair	268.45	Pro Rata Portion of Perforator	121.02
Supply Cabinet Shelves	25.35	Pro Rata Portion of One (1) Table	12.58
Pro Rata Share of Cost of Imperial		Pro Rata Portion of Postal Scale	12.47
Safe KD "60" (Kardex)	290.00	Stenorette Machine #205817	205.06
Air Conditioning Equipment—Office	1,621.00	Pro Rata Portion of Used Addressograph	
Five Drawer Letter File and Frames	122.78	Machine #312185 With Work Table	75.00
Five (5) Transfer Files	20.35	Pro Rata Portion of Hand Truck	3.13
Two (2) Five Drawer Filing Cabinets	245.56	Pro Rata Portion of Two Ginger Valets—	
American Medical Dictionary	25.00	#V-6-U	8.83
Two (2) Plate Glass Tops for Desks	20.34	Pro Rata Portion of One #11919 Paper Cutter	10.70
Desk, Swivel Chair and Desk Set	253.87	Pro Rata Portion of Five Tables	27.78
Remington Rand Electric Typewriter	430.55	Two 4-Drawer Files Complete With	
Pro Rata Share of Cost—Varityper—Used	50.00	Hanger Frames	194.47
Pro Rata Share of Cost—A. B. Dick		TOTAL PUBLIC RELATIONS OFFICE	\$ 6,569.88
Offset Duplicator	1,602.27	JOURNAL BUSINESS MANAGER'S OFFICE:	
Ten (10) Pronto Files	46.87	Steel File and Frame	\$ 88.27
Two (2) Four Drawer Durable File Cabinets	61.70	Pro Rata Share of Cost of Imperial Safe KD	
One (1) Kardex File Safe and Base	593.28	"60" (Kardex)	170.77
Pro Rata Portion of Postage Mailing Machine	427.85	Book—"Successful Sales Promotion"	5.65
Pro Rata Portion of Robotypewriter	360.50	Pro Rata Portion of Remington Electric	
Pro Rata Portion of Perforator	121.03	Typewriter #2129420	153.83
Pro Rata Portion of One (1) Table	18.47	TOTAL JOURNAL BUSINESS	
Pro Rata Portion of Postal Scale	12.48	MANAGER'S OFFICE	418.52
Stenorette Machine #215391	156.06	RURAL HEALTH AND MEDICAL CARE COMMITTEE:	
Stenorette Machine #219890	156.06	Masco Tape Recorder	\$ 159.18
Two Transcribing Kits For Stenorettes	60.08	One (1) Desk	185.40
Telephone Adapter and Switch Box	17.66	One (1) Steel File and Trays	121.29
Two Gray Legal Desk Trays	14.63	One (1) Soundscriber	150.00
Book Case Section #813 Walnut	29.26	Pro Rata Portion of Two Ginger	
Gray Table #1808	49.59	Valets—#V-6-U	8.83
Three Transcribing Kits For Stenorettes	89.75	TOTAL RURAL HEALTH AND MEDICAL	
Four Stetho Clips For Stenorettes	12.00	CARE COMMITTEE	624.70
Documentor Electric Typewriter	372.55	ANNUAL SESSIONS CONVENTION:	
Remington Electric Typewriter #E-2289256	360.85	Portable Lectern	\$ 29.67
Pro Rata Portion of Used Addressograph		Stenorette Machine #219618	205.06
Machine #312185 With Work Table	75.00	Stenorette Machine #214740	196.75
Pro Rata Portion of Hand Truck	3.00	Stenorette Machine #216837	196.75
Pro Rata Portion of Two Ginger		TOTAL ANNUAL SESSIONS CONVENTION	628.23
Valets—#V-6-U	26.59	INTRA FUNCTIONAL ACTIVITIES:	
Pro Rata Portion of Remington Electric		Gray Secretary's Desk	\$ 224.35
Typewriter #2129420	153.83	Gray Secretary's Chair	36.77
Three Letter Size File Cabinets	103.72	TOTAL INTRA FUNCTIONAL ACTIVITIES	\$ 261.12
One—TU-24 Stak Tube Roll File	40.00	TOTAL OFFICE FURNITURE AND FIXTURES	\$26,493.05
Pro Rata Portion of One		REAL ESTATE:	
#11919 Paper Cutter	10.70	Land—Durham-Raleigh Highway—(Schedule—3)	26,104.55
One—15 Ft. x 16 Ft. Rug and Mat	144.82	OTHERS ASSETS:	
Pro Rata Portion of Five Tables	27.78	Capital Stock—State Medical Journal Advertising	
One—122H Steel Cart With 3 Shelves	35.76	Bureau, Inc.	200.00
One Brief Case	53.51	TOTAL CAPITAL ASSETS—TO EXHIBIT "A"	\$52,797.60
Six 4 Drawer Letter Size Files	199.31		
One Documentor Electric Typewriter	372.55		
One Modern Tub Chair	31.82		
Two Bookcases	66.64		
One Electric Projection Pointer	77.15		
TOTAL EXECUTIVE OFFICE	\$17,990.60		
PUBLIC RELATIONS OFFICE:			
Four (4) Aluminum Desk Trays With Supports	\$ 9.00		
Steel Costumer	14.20		
Cash Box	1.50		
Supply Cabinet	37.00		
Two (2) Waste Baskets	7.00		
Metal Executive Desk	112.60		
Executive Chair	48.80		
Two (2) Side Arm Chairs	60.40		
Metal Secretary Desk	136.40		
Secretary Chair	30.20		
Storage Cabinet	37.00		
Two (2) Chair Mats	12.90		
Hinge Top Card File	1.60		
Stapler	4.95		
Punch	3.15		
Metal Letter File With Lock	61.60		
Storage Cabinet	37.00		
Royal Typewriter	133.31		
Two (2) Electric Fans	63.29		
Four Drawer Metal File	69.49		
Two Drawer Metal File With Lock and Base	18.36		
Supply Cabinet	75.00		
Two (2) Desk Trays and Stacks	4.64		
Metal Storage Cabinet	57.29		
Pro Rata Share of Cost of Mimeograph Machine	508.53		
Pendaflex Frames (Installed)	4.64		
Folder Machine and A. B. Dick Stand	397.88		
Used Elliott Addressograph	123.83		
Two (2) Telephone List Finders	6.06		
Pendaflex Frame (Installed)	4.50		
Verifax Printer Type I	247.20		
Used Projector—Nadco	153.43		
Model DLS Screen	32.45		
Record Player	101.25		
Microphone and Stand	19.40		
Projector With Case—Slide	94.47		
Lectern Mike	56.85		
Display Equipment—Flip Chart	31.74		
Remington Electric Typewriter	430.55		
One (1) Camera and Flash	88.98		
Film Holders and Adapters	19.00		
Metal File	95.79		
Pro Rata Share of Cost—Varityper—Used	50.00		

PUBLIC RELATIONS ANNUAL REPORT

of

WILLIAM N. HILLIARD

Throughout the year I have exerted my best efforts toward whatever goals were set by the Society through its principal officers and by the Committee on Public Relations. I sincerely hope that my efforts in this regard have proven productive.

The Committee on Public Relations should certainly be recognized for their wise guidance in many areas of Society activity. The Committee consisting of Dr. Edgar T. Beddingfield, Jr., as Chairman and Dr. Ralph B. Garrison and Dr. Courtney D. Egerton as members have willingly given much time and effort to various projects of the Society. I certainly wish to thank them for their

kindnesses on many occasions and for their assistance freely given.

As always your Executive Director, Mr. James T. Barnes, has graciously given of his time for valuable advice and for the important overall direction of effort that things might be properly coordinated. I wish to thank him wholeheartedly for his assistance and guidance.

The Conference of County Medical Society Officers and Committeemen was again sponsored by the Committee on Public Relations and held on February 11, 1961. This conference involved considerable time and effort, principally in the winter period just before the first of the year. Workbooks as reference material for the various County Society Officers were developed and distributed at the time of the meeting.

The Public Relations Bulletin has been edited and published on a monthly basis, except for the months of May, July and August, with a total of nine issues distributed during the year. Every attempt is made to include material in the Bulletin which is as up to date as possible maintaining a brevity of content and importance of information to the membership.

An exhibit at the North Carolina State Fair, October 11-15, 1960 was developed in the name of the Society and under the supervision of the Committee on Public Relations. The display followed the educational theme of "Seven Paths to Fitness" emphasizing Proper Medical Care; Nutrition; Dental Services; Exercise, Satisfying Work; Healthy Play and Recreation; and Rest and Relaxation. The exhibit booth also offered an opportunity for visitors to have their blood typed and to receive an identification card recording this information. Educational literature was distributed at the fair booth and included first aid charts, personal health pamphlet information record cards, family health record booklets and a pamphlet entitled "What Everyone Should Know About Doctors."

The details of the Committee on Public Relations cooperation with the State High School Science Fair program have been worked out whereby a representative of the Biological Science Division of State High

School Science Fair is invited to display his or her exhibit at the Annual Meeting of the State Medical Society. This year's winner is Miss Pamela Haines of Kinston and her exhibit is entitled "Tuberculo-Immunity."

A "Reference List of Medical Spokesmen" comprising the County Medical Society Presidents, Secretaries, and Chairmen of the Committee on Public Relations was again distributed to the newspapers throughout the state as a continuing effort in behalf of promoting mutual understanding between the medical profession and representatives of the information media.

Time spent attending the two day Annual Public Relations Institute of the American Medical Association last September 1-2, was considered well spent. Traditionally this meeting offers an outstanding opportunity to glean new ideas from the experiences of others in related capacities in other State Medical Society groups from throughout the nation.

As a cooperative effort with the Committee on Medical Credit Bureau, the exhibit developed under their supervision was shipped to and displayed at the Annual American Medical Association in Miami Beach during last June. The booklet based on the exhibit and printed at the Society's Headquarters Office was distributed at the AMA meeting.

Another booklet printed at the Headquarters Office was developed by the Committee to Work with the Industrial Commission of North Carolina and was entitled "Guide for Permanent Disability Evaluation of Industrial Accidents." Copies were distributed to the membership as an enclosure with the June 1960 issue of the Public Relations Bulletin.

New projects worked on for the first time during the past year under supervision of the Committee on Public Relations were the Medical-Press Award and a Rescue Squad Award. The Medical-Press Award was given to the reporter submitting the most outstanding samples of reporting of medical information to the public during 1960, and went to Mr. Don Seaver of the Charlotte Observer. The Rescue Squad award is a trophy presented to the winner of the rescue squad competition at the Annual Meeting

of the North Carolina Association of Rescue Squads. Cooperation with local rescue squads is a most worthwhile project which should be considered by every County Medical Society.

Radio stations in North Carolina continue to use many of the transcribed radio programs developed by the American Medical Association. The Headquarters Office of the State Society serves as a distribution point for such radio programs in the State.

On January 9-12, 1961, I attended, along with other Society representatives, the White House Conference on Aging. I was particularly struck by the unanimity of purpose which prevailed at this conference among labor leaders, welfare workers and representatives from sociological divisions of educational institutions. This group was dedicated to the inclusion of medical care for the aged under a federal Social Security program. In this connection there was little consideration given to the opinions of physicians in regard to the need for such medical care. Instead, it was proposed as a public policy decision in an effort to speed group support for the Social Security health proposal and increase the likelihood of a federalized scheme becoming law. In face of this unified front it behooves physicians to exert their personal efforts with patients and acquaintances that they may better understand the advantages of free choice of physician under our existing system of care as opposed to any socialized program.

Statistical reference is made to the following tabulation with regard to the public relation mailings:

Mail received	1,798
Mail dispatched	7,119
Press Releases	5,052
Films	14
Radio Transcriptions	130
Public Relations Bulletin (9 issues)	29,700
Educational pamphlets	9,187
Long Distance Telephone Calls	157
Respectfully submitted, William N. Hilliard Executive Assistant For Public Relations	

ANNUAL REPORT OF THE PRESIDENT THE AUXILIARY TO THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA

1960 - 1961

It has been a pleasure to serve this past year as President of the Auxiliary to the Medical Society of the State of North Carolina. I report to you today with pride in the dedicated, enthusiastic service given by our members throughout the state.

Early in 1960 the groundwork was begun with the procurement of Committee Chairmen. Then followed preparations for the President-elect luncheon during Convention in Raleigh. This was attended by in-coming and out-going State and County Officers, Committee Chairmen, and Councilors, and at that time emphasis was placed on our Mental Health program which was to be one of our chief state projects for the coming year. The speaker, the Reverend Truman S. Smith, spoke on "Wholeness and Health," stressing the "healing team" of family physician, psychiatrist, and minister.

In June your President attended the Convention of the Woman's Auxiliary to the American Medical Association in Miami Beach. Our full complement of seven delegates, including three Past Presidents, attended all sessions. Four busy days yielded much information essential to planning for the coming year since, in addition to our state projects, many of our activities are centered about those of the National Auxiliary.

The summer months were spent in editing the yearbook **Guide Posts**, which is the working manual for our County Presidents and State Committee Chairmen, and planning the many details of the Fall Board Meeting and Workshop which was held in Raleigh on September 7, 1960. My sincere appreciation is extended to Mr. C. Tolbert Wilkinson, Chairman of Arrangements, for its beautiful execution, and to the members of the Wake County Medical Auxiliary which provided the hostesses and the morning coffee hour. There were 139 in attendance, a record high, and it was felt that those who came found it a profitable day. Recommendations from the Executive Committee, five in number, were presented at the morning session of the

Board Meeting. These were approved and will be presented for confirmation to the House of Delegates in Asheville on May 9, 1961. Dr. Amos N. Johnson, President of the Medical Society, spoke to us concerning "The Image You Married," Dr. W. Reece Berryhill, Dean of the School of Medicine of the University of North Carolina, emphasized the need for recruitment of high caliber medical students, and Mr. George D. Maddrey, Associate Advisor in Safety, State Department of Public Instruction, spoke regarding SWAT (Safe Water Activity Training). Dr. Roscoe D. McMillan, Chairman of the Advisory Committee to the Auxiliary, was present to give us his ever helpful support. The afternoon session, presided over by the President-elect, Mrs. George T. Noel, was devoted to five workshops, conducted by the Chairmen of A.M.E.F., Community Health, Civil Defense, Health Careers, and Mental Health.

October and November were busy, interesting, and enjoyable months with much correspondence and many meetings. As of the date of this report, I have driven 2,975 miles to attend a Convention Committee meeting in Asheville, 5 District meetings, and 4 County meetings, as well as 5 meetings with other organizations whose interests are allied with ours. Mrs. James F. Reinhardt, Second Vice-President, attended a meeting in Durham of the North Carolina State Nurses Association in my stead. There are 3 county meetings on my schedule before Convention, as well as two meetings with other organizations. It was with genuine regret that I could not meet with the Fifth and Eighth Districts, and that the Third District meeting was cancelled because of inclement weather.

The National Fall Conference of Presidents and Presidents-elect was held in Chicago in October, which prevented my attendance at the Medical Society Committee Conclave in Pinehurst. Dr. Hitch was an able substitute, however, and presented my report to the Advisory Committee as well as the Executive Committee. The Chicago Conference was the second I had attended, and North Carolina was honored by having its President give the invocation at the opening session. Our President-elect, Mrs. Noel, Mrs. Robert L.

Garrard, a member of the Editorial Board of the *Bulletin*, and Mrs. Robert D. Croom, Jr., a National Director, were present. Mrs. Noel and I wish to express our appreciation to the Medical Society for the financial assistance given us for this truly important meeting.

Membership and Organization

As of February 25, 1961, the total membership was 2,100, with 79 of our 100 counties organized into 57 component Auxiliaries. Included in this total is Bertie-Gates-Hertford which became inactive last year. Martin-Washington-Tyrrell has been reactivated. Duplin County is enjoying its first year as an organized auxiliary. The total number of members-at-large was 7. The final total, both in organized membership and members-at-large will probably be considerably greater since a few counties have not yet reported their membership and many members-at-large pay dues at Annual Convention. Districts 100% organized are the Third, Fifth, and Seventh. Organizational efforts have been made in unorganized counties or disbanded Auxiliaries, and while some progress has been reported, organization has not been accomplished at this time. Ten counties have reported 100% membership.

American Medical Education Foundation

Thirty-eight Auxiliaries have contributed \$2,299.65, more than \$300.00 above last year's final total. Several counties have indicated a further contribution will be made through the visiting piggy bank project, while others will contribute in connection with Doctors' Day. Notable is the Christmas Card project of Stanly County which contributed over \$300.00, as well as making it possible for some of the counties participating in this project to increase their contributions. To those counties increasing their budgets for A.M.E.F., is also given a hearty "thank you."

Auxiliary News

Our quarterly publication is published by the Public Relations Department of the Hospital Saving Association of Chapel Hill, with Mrs. Edwin M. Robertson, Auxiliary member, as editor. The fourth and last issue of this year will be the Spring Issue of March 15, which is the Convention Issue. When this

has been mailed, 9,308 copies will have been sent to members of our Auxiliary, as well as to National Officers and Presidents of the other 49 states.

Bulletin

This is a valuable National publication and should be read by each officer and chairman, both county and state. 20 Auxiliaries have reported a total subscription of 155.

By-laws

A major revision is in process which will be a two-year project. It is hoped that the first draft will be ready in time for the Annual Meeting to give the county Auxiliaries time to examine it and make recommendations before the final draft is presented to the 1961 Fall Board Meeting.

Civil Defense

Less than half of the Auxiliaries reported their Civil Defense activities, but of those who did report, the response was gratifying. A majority of the Auxiliaries cooperated with other Civil Defense organizations, and all had programs either in the form of talks, films, or skits. Over 60 Auxiliary members completed the Home Nursing course, and another 50 took the First Air course. Eight members acted in the capacity of teachers in these courses. Twenty homes have been adequately prepared for disaster, and one home has received the coveted "Home Preparedness Award." The Chairman has been invited to speak to several Auxiliaries and in each instance has urged the members to go out to talk before other groups.

Community Health

This has been a year of active participation of Auxiliaries and individual members in Community Health Projects. Thirty-one Auxiliaries reported community health activities and many reported special projects promoted. All participated in the various health drives, 9 in School Health programs, 17 in Red Cross activities, and 12 presented *Today's Health* subscriptions to 4-H Kings and Queens. Outstanding projects have been the organization of a Hospital Auxiliary, sponsoring Area Health Conferences, showing films in the health fields, manning a bloodtyping booth, establishing loan funds for student nurses, manning stations for Diabetic Surveys, sponsoring Health Career

Programs, Health Speaking Contests, and participating in a Poison Control Center project.

Community Service

There has been an over-lapping of Community Service and Community Health, but these two committees will be combined next year under Community Service and reporting will be simplified. Forty-one Auxiliaries reported 80% of their membership contributing immeasurably in almost all phases of community service, and small auxiliaries are making some of the greatest contributions in accordance with the size of their communities and the problems encountered. Increased interest was shown in civil defense, control of poisons, medical legislation, and "Get Out the Vote" campaigns. Two Leadership Institutes were held jointly with other community groups. Serving on executive boards of community and state civic, health, cultural, religious, and welfare organizations and as college trustees, many Auxiliary members have distinguished themselves as community and state leaders, and a few were active on a national level.

Doctors' Day

All county Auxiliaries plan to observe Doctors' Day on March 30, 1961. Many will contribute to A.M.E.F. in honor of their doctors; others will send card or notes; some will have parties or dinners, while others will send red carnations to the doctors or place flowers in hospital lobbies or chapels.

Health Careers

Health Careers Day, which most Auxiliaries are supporting, will be held in the high schools throughout the state on March 12, 1961. The pattern set by previous years has proved its worth, and one county is again assisting in a Career-O-Rama; others are holding teas, coffees, and parties for prospective student nurses; some are sponsoring Future Nurses Clubs. One-third of our Auxiliaries provide scholarships for nurses, and some sponsor practical nurses. One county has provided hair dryers at the local Nurses Home. Working with other organizations whose interests are allied has been one of the outstanding results of our Health Careers program.

Legislation

With Kennedy-type (better known as the Forand-type) medical legislation still before us, we are continuing to make it our business to be informed. The Medical Legislative Digest is being received currently by our 57 county organizations. The State Chairman has contacted each county, sending pertinent information concerning the Kerr-Mills Law. The November elections brought forth outstanding work from many counties. Of the 32 counties reporting, all were taking an active interest in legislation, reading the *A.M.A. News*, and many were working closely with their County Societies. Much hard work lies before us in defeating compulsory Social Security medical legislation, but it is apparent that we can count on every member of our Auxiliary to do her best in combatting this menace to the free practice of medicine.

Mental Health

In May, 1960, the House of Delegates approved the establishment of the Mental Health Research Endowment Fund to be built up to a minimum of \$10,000.00 through contributions by the county Auxiliaries. To date \$582.47 has been received, one hundred dollars of which was contributed last year. Twenty-one Auxiliaries reported Mental Health activities, representing 34 counties. All districts were included, which is an advance over last year. The largest area of Mental Health work was in the form of volunteer services with Mental Health Associations, local hospitals, Children's Centers, Hospital Guilds, various state hospitals, and Family Life Clinics. One county has been responsible for the establishment of a Mental Health Clinic. A sustained interest in problems of the aged was shown in the reports. Pamphlets on alcoholism were distributed in 4 counties, some being placed in doctors' offices, and others in the local schools. Many counties have plans to observe Mental Health Week. Ten counties reported definite plans to use radio programs, special speakers, editorials furnished to the local papers, and distribution of educational materials. The reports showed that where the county Mental Health chairman is active or where the President is Mental Health con-

scious, there is a great deal of interest and much service is rendered both individually and as a group.

Program

Thirty-one county reports were received, representing ten districts. Some Auxiliaries reported study groups and two reported giving an orientation course for new members. The programs which brought out the best attendance were joint meetings with the local Medical Society, luncheons, and social meetings. The SWAT (Safe Water Activity Training) film and speakers were the most popular. One county had a live demonstration in a pool, with community leaders invited as guests. The Civil Defense Skit was used by four Auxiliaries and one performed it before two County P.T.A.'s. Many other programs suited to community needs were given and it is apparent that there was a great variety in programs this year.

Radio, TV and Movies

Next year this committee will be combined with the Program committee, thus eliminating some duplication. Reports were received from 19 counties, with 4 counties reporting use of these mediums. One county used radio programs to announce its bake sale as well as to give reports on monthly activities. Another used films, slides, and musical recordings on "Keep America Beautiful," presenting this program to 16 schools, 5 clubs, and 3 Scout Troops. A total of 3,700 people saw this program. Another county cooperated with Civil Defense and Safety programs with spot announcements over radio and TV. Another showed films at a Health Fair. This is an indication of what could be done to benefit members as well as the general public, should more of our Auxiliaries use these mediums.

Research

Twenty Auxiliaries reported, representing 10 districts. Work continues in progress in 6 counties. The long-range state project of compiling a collective biography of all Past Presidents of the Medical Society is a slow and exacting task, but some progress has been made.

Safety

Reports were received from 26 counties. Eleven counties were inactive in this field:

however, four plan to have programs on Safe Water Activity Training later in the spring. Eight participated in SWAT, 6 in Poison Control, 1 in Safety Instructions for Elderly People, 4 in Traffic Safety, and 1 in Farm and Home Safety. The Safety Program has been brought to the attention of the public through the use of newspaper articles, distribution of posters, pamphlets, and leaflets to schools and offices, and by the showing of safety films at P.T.A. meetings and schools, cooperating with various civic organizations, city recreational departments, and safety councils. One county helped procure luminous tape to be used on bicycles. Another interesting and unique idea was the use of hats, "Your Bonnet with All the Hazards On It," trimmed with various safety hazards encountered in the home. These were displayed at a Coke Party and then given to the P.T.A. Council Safety Chairman to be used for school demonstrations. Several counties are planning to have classes in First Aid.

Sanatoria Beds

The Yoder Endowment Fund has been completed in its full amount of \$10,000.00, which has been accomplished in remarkably fewer years than the funds for the other three beds, viz.: Cooper, McCain, and Stevens. Our County Auxiliaries are to be congratulated for their fine support in finishing this project. During the year the Yoder Bed at Gravelly Sanatorium, Chapel Hill, has been occupied by Miss Letha Byrd, and the present occupant is the husband of a graduate nurse, Mr. Ernie Jackson Clark. Miss Louise Ware occupies the McCain Bed at McCain Sanatorium; Miss Jessie Newman, a retired nurse, who at one time worked for Dr. Martin L. Stevens, occupies the Stevens Bed at Western North Carolina Sanatorium, Black Mountain; and at present the Cooper Bed at Eastern North Carolina Sanatorium, Wilson, is unoccupied, Mrs. Inez Taylor Mason having been discharged in August, 1960.

Scrapbook

The majority of the County Auxiliaries keep Scrapbooks. Excellent material has been contributed by them to the State Scrapbook Chairman, and more is promised to include Doctors' Day.

Student Loan Fund

There are twelve loans of \$500.00 outstanding to eight recipients, six of whom have already graduated. With a balance of \$1,571.90 as of the present, we are in a position again to grant loans to worthy applicants, and the Student Loan Fund Chairman plans to contact the Medical Schools in North Carolina before the next semester begins. The recipients of these loans are very grateful and we as an Auxiliary are happy to have been able to give assistance.

Student A.M.A.

Two medical schools, Duke University and the University of North Carolina, are located in the province of one Auxiliary, Durham-Orange. This Auxiliary has been very active in working with the young wives of students, interns, and residents. At Duke the group has affiliated with S.A.M.A., while at Carolina it is preferred to remain unaffiliated, the group being known as the P.H.T.'ers, or "Putting Hubby Through." In this latter group there has been a wonderful response to the social functions and programs provided by the Auxiliary, and it is felt best to leave affiliation or non-affiliation to the wishes of the local group. At Bowman Gray School of Medicine the group is non-affiliated and is sponsored by the Hospital Auxiliary rather than the Medical Auxiliary of that county; it is, therefore, beyond our province to dictate. In the communities where there are wives of interns and residents of hospitals which are not associated with medical schools, the local Auxiliaries have been most generous in their welcome, inviting them to attend their meetings, as well as to participate in their social functions. It is our feeling that North Carolina is providing for these younger people who will become a part of our local auxiliaries in the near future.

AAPS Essay Contest

The Essay Contest sponsored by the Association of American Physicians and Surgeons received the attention of several Auxiliaries. The results of their efforts have not as yet been reported.

Yearbooks

Yearbooks were reported by 21 counties,

which remains the same as in last year's report. With many small counties it is quite unnecessary to have one, but in the larger Auxiliaries it is most helpful. To date the Yearbook Chairman has received 12 year-books. Those which have been sent to the Chairman before Convention will be judged for the award which will be announced on May 9, 1961, at the General Meeting.

General Remarks

If one of the recommendations which was passed at the meeting of the Board of Directors in September, 1960, is confirmed at the House of Delegates meeting in Asheville, the immediate Past President will become Chairman of Reports for one year. It is hoped that this might help in the simplification of reports. The Auxiliary has blossomed from a membership of less than 1,500 to a membership of almost 2,300 in a period of six years. With a volunteer administration which changes yearly, a greatly enlarged membership, and with more demands for community service, it has been difficult to report in a simple fashion. We hope that suggestions will be given by County Presidents and Committee Chairmen which will aid in planning the new report forms so that a minimum of time in compilation will give us the maximum information.

On February 12, 1961, the Medical Society's Executive Committee voted to assist the Auxiliary President with financial aid for clerical help. This was greatly appreciated. Your President had reported to the Chairman of the Advisory Committee to the Auxiliary, Dr. Roscoe D. McMillan, that our leadership is not always composed of women with stenographic abilities. This financial assistance should be a boon to the *coming administrations* and we are indeed grateful to the Medical Society.

I would like to express my appreciation to those who have made this year so pleasant and gratifying, to the President of the Medical Society, Dr. Amos N. Johnson, and his able partner "Monk"; to Dr. Roscoe D. McMillan, long a friend of the Auxiliary, to Mr. James T. Barnes, Executive Director, and Mr. William N. Hilliard, Assistant Director of the Medical Society Office; to Mrs. Annette Boutwell, Health Consultant

of the Society; and to the personnel of the Society Office, with special mention of Mrs. LaRue King. My heartfelt thanks to the Officers, State Committee Chairmen, and Councilors who have served with me and who have performed their duties magnificently; to the Past Presidents on whose shoulders I have leaned; and to my own Wake County Medical Auxiliary whose support has been constant. My special appreciation goes to our immediate Past President, Mrs. Robert L. Garrard, and our very competent Treasurer, Mrs. W. Ralph Deaton, Jr., who have been helpful friends indeed.

Mrs. Joseph M. Hitch
President

918 Cowper Drive, Raleigh
March 5, 1961

REPORT OF FIRST DISTRICT COUNCILOR

The First District of the North Carolina Medical Society has had a few matters requiring the attention of the Councilor. These have been satisfactorily met.

Twin problems relating to ethical notices of office hours and locations of established physicians of the Nags Head Beaches and the summer-time practice of medicine by vacationing North Carolina and out of state physicians have had much thought. The former has been solved, the latter in so far as visiting North Carolina physicians is concerned we hope can be solved by the ethical standards of The Golden Rule.

Your Councilor had meetings with the component societies as well as attended the four District Society Meetings.

The First District Society officers are Dr. Mercer Bailey, Elizabeth City, N. C., President, Dr. T. P. Nash, Elizabeth City, N. C. Secretary and Treasurer.

Six post graduate lectures were held again at Edenton, North Carolina, all of which were well attended and received.

The Seaboard Medical Society meets again in June at Nags Head, North Carolina, giving further educational opportunities for area and visiting physicians.

Thomas P. Brinn, M.D.
Councilor

REPORT OF THE 2nd MEDICAL DISTRICT

The 2nd Medical District of the North Carolina State Medical Society has had a fine year during 1960. All matters have been handled without complications, and there have been no problems which have not come to a reasonably satisfactory resolution.

The 2nd District held a very fine meeting in Morehead City on Friday, July 8, 1960 with the Carteret County Medical Society as host. An afternoon scientific session was held at the Morehead City Country Club with a panel of the faculty of the Bowman Gray School of Medicine of Winston-Salem presenting a discussion of "Differential Diagnosis of Acute Abdominal Pain". President Amos Johnson attended the meeting, and the district was well represented by physicians from various communities. A plea again this year was made by both Dr. Johnson and myself to encourage better participation of physicians in their local, district, and state medical affairs. There was a social and dinner at the Dunes Club on Atlantic Beach including the wives of members and guests. The entire meeting was very successful.

Your councilor has met with each component society during the year of 1960, where he was well received in each instance, and found an active society with reasonably good interest in medical affairs. There was discussion among the members of the Beaufort County Society, and the Martin-Washington-Tyrell Society regarding the possibility of a future merger into a larger district. After discussion with some members of both societies, it was recommended that they continue their discussion further, and your councilor would like to recommend that this merger be approved should the component societies agree.

Again I would like to urge that individual physicians in the 2nd District pay closer attention to editorials in the State Medical Journals, as well as to information brought through the Public Relations Bulletin from the state office. Your 2nd District Councilor has attended each and every meeting of the Executive Council, and has complied in every respect with the wishes of the N. C. State

Medical Society to the best of his ability.

Respectfully submitted,
Lynwood E. Williams, M. D.
Councilor 2nd Medical District

REPORT OF 3rd MEDICAL DISTRICT

The Third District had two (2) meetings during the year 1960. They were well attended. Our fall meeting was held in Jacksonville, North Carolina, at which Dr. Peacock from The School of Medicine, Chapel Hill, N. C., gave us a wonderful lecture, with slides on "Plastic Surgery." Our President, Amos Johnson, also gave us a very good speech as usual.

Only one (1) case of complaint was brought to my attention during this past year, and that was where a Chaplain Consultant infringed on Medical Rights. However, everything was straightened out quite easily. When approached, it was discovered he did not realize that he was doing wrong.

Our Officers for 1961 are as follows:

President Glenn Best
Vice President Dewey H. Bridger
Secretary-Treasurer John Nance

The Third District this year (1961) will meet in Clinton, N. C.

Dewey H. Bridger, M. D.
Councilor Third Medical District

REPORT OF THE FOURTH MEDICAL DISTRICT

I am happy to report that this has been a good year for the physician members of the Fourth Medical District. A small number of professional misunderstandings have been brought to our attention, but these were easily resolved. There has been no major incidents of import. The Councilor has during the year visited all of the county societies in the district with the exception of one. It is the impression of the Councilor that in general each of the societies has an active program operating and a significant number of members seem to be taking an increasing interest in society affairs.

Edgar T. Beddingfield, Jr., M. D.
Fourth District Councilor

REPORT OF 5th MEDICAL DISTRICT

As Councilor of the 5th District of the Medical Society of the State of North Carolina, I am happy to report that excellent harmony exists within the district.

The 5th District had a full day meeting held at the Southern Pines Country Club. The meeting was well attended and an excellent scientific program was presented. Dr. Amos Johnson, our State President was able to attend and spoke briefly and thoroughly on problems facing organized Medicine this year.

The cocktail hour was through the courtesy of Drug Products Company of Winston-Salem, North Carolina, and added much to the evening's pleasure.

As Councilor, I attended the work shop meeting for newly elected county officers held at Pinehurst, North Carolina, sponsored by the Public Relations Committee of the State Society. Also I have had the pleasure of attending several County Chapters regular meetings during the past year and I am pleased with the cooperation and interest shown concerning the problems that face us in organized medicine this year.

Dr. Ralph B. Garrison,
Councilor
Fifth District.

REPORT OF 6th MEDICAL DISTRICT

The annual meeting of the Sixth District was held in Raleigh in conjunction with the Wake County Medical Society at their November meeting. The combined membership heard an interesting address and entered into an enthusiastic discussion concerning the practice of medicine as it currently exists in England.

The out-going officers are:

President:

Joseph D. Mayo, Jr., M. D.
220 Horner Street
Henderson, North Carolina

Vice-President:

John T. Lloyd, M. D.
Franklin Memorial Hospital

Louisburg, North Carolina
Secretary-Treasurer:

Malone Parham, M. D.
523 South Chestnut Street
Henderson, North Carolina
The newly-elected officers for 1960-61

are:

President:

William D. Rippy, M. D.
1610 Vaughn Road
Burlington, North Carolina

Vice-President:

Leon N. Ogburn, M. D.
416 St. Mary's Street
Raleigh, North Carolina

Secretary-Treasurer:

Emery T. Kraycirik, M. D.
Box 1153
Burlington, North Carolina

The Councilor, following the instructions of the Executive Committee, either contacted or personally visited the officers of each of the Societies within the District, and urged them to more active participation in choosing men for officers of the Medical Society on a State level.

The Councilor had no grievances presented by patients. There was, however, a single instance in which there was a question of abnormal behavior on the part of a physician which caused great offense to people in the neighborhood in which he lived. Through the combined efforts of the local law enforcing agencies, and the cooperation of the individual involved, this matter was handled without bringing any unfavorable publicity on the individual or the profession, in that the doctor involved removed himself from the district.

The Councilor has attended each of the meetings of the Executive Council as well as attending the Annual Meeting in Raleigh and the recent Special Meeting of the House of Delegates in Durham.

A continued effort has been made to encourage doctors within the District who are not members, to come into our membership. The year has been a harmonious one.

Respectfully submitted,
George W. Paschal, Jr., M. D.
Councilor, Sixth District

REPORT OF SEVENTH MEDICAL DISTRICT

The Annual Meeting for the Seventh District Medical Society was held in Gastonia at the Gaston Country Club, Wednesday, October 19, 1960. President Vernon L. Andrews, Mt. Gilead, N. C., presided. Arrangements had been made by Leslie M. Morris, M. D., and Jesse Caldwell, M. D., Secretary and Treasurer. A very interesting program was conducted and our speakers were Dr. Joseph E. Whitley, Bowman Gray School of Medicine, who talked on Radio Isotopes and Renal Function. Dr. William W. Shingleton spoke on the Post-Cholecystectomy Syndrome. A talk of Thrombocytopenic Purpura was given by Dr. Doris Howell, Duke University Medical School. Later in the evening Dr. Nathan Womack from the Department of Surgery, University of North Carolina, spoke on the problems of massive bleeding with Cirrhosis of the Liver. This was a very outstanding meeting and it was a pleasure to be in the New Gaston County Country Club, which certainly is one of the finest clubs in the state. The evening address was by the Honorable Basil L. Whitener, Congressman from the Eleventh Congressional District, but whose home is in Gastonia, North Carolina. This talk was on "See How Our Government Grows".

One investigation for the Medical Society of the State of North Carolina's Committee on Grievances was carried out and it would appear that everyone concerned is now satisfied. This matter was settled on a local level by participation by local doctors satisfactorily.

Another problem that was settled on the local level had to do with a physician residing in one county and desiring membership in another county medical society. The Constitution and By-Laws of the Medical Society of North Carolina are fairly explicit on this matter and it was also settled on a local level satisfactorily.

Numerous meetings have been attended including those of the Executive Council called by the President of the Society, as well as visits to local county societies, especially to bring information concerning the

Mills-Kerr Act.

In general, the Seventh Medical District certainly appears to be alert and active and informed on medical matters both local and national that concerned it. I would like to observe that a closer relationship between the various county officers and the councilors for the districts might be more helpful in the spreading of useful information from the state level down to the county level.

Respectfully submitted,
E. S. Bivens, M. D.
Councilor,
Seventh Medical District

REPORT OF 8th MEDICAL DISTRICT

There have not been any complaints reported to your councilor during the year.

Since assuming the responsibility of Councilor in September, 1960 it has not been possible to attend any of the county meetings except Surry-Yadkin and one meeting of the Wilkes County Society.

There is an evident absence of liaison between the district councilor and the various societies. It is recommended that the secretaries of all county societies be requested to place their respective councilors on their mailing list so that the councilor will be better able to meet with and render better service to the county societies in his district.

The fall meeting of the Society which was held in Mount Airy in October was instructive, interesting and well-presented. The attendance was somewhat below what would be hoped for.

Respectfully submitted,
H. L. Johnson, Councilor
Eighth District
Medical Society of the State of
North Carolina

NINTH MEDICAL DISTRICT

The past year in the Ninth District has been noteworthy in the welcome transfer of the Watauga County Medical Society back into the Ninth District.

Our annual meeting was held in Morgan-

ton on September 29, 1960. The program arranged by Dr. Billings and his associates was excellent and was well attended. We are looking forward to our next meeting in Conover under the leadership of Dr. W. T. McLaughlin who was elected President of the Ninth District for the coming year.

Respectfully submitted,

Thomas L. Murphy, M. D.

Ninth District Councilor

REPORT OF COUNCILOR FROM 10TH DISTRICT

I have nothing to report from my District. I have conducted every investigation requested of me, and thus far have managed to settle all problems amicably.

The general Professional atmosphere is fine all over the District.

Signed,

W. A. Sams, M. D.

Councilor for Tenth Med. District

REPORT OF ADVISORY AND STUDY COMMISSION

I. Committee on Auxiliary Advisory and Archives of Medical Society History:

Dr. Roscoe D. McMillan, Chairman:

1. Advisory to auxiliary:

A. Mental Health Research Endowment Fund program, earnings to be used by the Director of Department of Psychiatry at U.N.C. School of Medicine at his discretion.

B. Development of Paramedical career program of recruitment and scholarships, continuing.

C. Safety and Education for old people in use of Devices, Highway and Water Safety program.

D. Student Loan Fund; A.M.E.F. and distribution of, health materials through allied women's organizations.

2. Archives of Medical Society History:

Program is developing nicely and will be continued:

II. Committee on American Medical

Education Foundation:

Dr. Ralph Garrison, Chairman:

Comparison of:

1. Contributions thru A.M.E.F. for four years.

1957-1958 5,690.00

1958-1959 5,388.00

1959-1960 6,325.00

1960-1961 17,081.00

2. Improvement due to Auxiliary, and education of doctors. In January 1961 an additional 3,600.00 contributed, not included in above figures. Committee feels that education thru personal letters, Public Relations notes, and articles in the State Journal are essential to further progress.

III. Committee on Blue Shield:

Dr. J. H. Shuford, Chairman:

1. Committee met five times in regular session, once in a special call session. Special session in an advisory capacity concerning fee schedules as might pertain to Mills-Kerr Act.

2. Development of Medical Rider to include first day payment by co-insurance clause requiring patient to pay 50% of first three day coverage.

3. Broadening of Radiation Rider.

4. Benefits included for traumatic injury, removal verrucae, and change of E.E.N.T. fees and nomenclature.

5. Problem of Interns and Residents acting for Staff Physicians resolved by allowing pay for Residents but not Interns.

6. Development of Blue Shield County Consultant Program.

IV. Committee on Constitution and By-Laws:

Chairman: Dr. Roscoe D. McMillan to report.

V. Committee on Medical Credit Bureau: Dr. Howard Wilson, Chairman:

1. Discussion of exhibit which has been displayed at N. C. State and A.M.A. meetings.

2. Discussion of report on credit bu-

reaus appearing in N. C. Medical Journal.

3. All new physicians to be notified of the existence of the Committee and its recommendations concerning use of Medical Credit Bureau.

VI. Committee to Work with Industrial Commission of N. C.

Thomas B. Dameron, Jr., M.D., Chairman:

1. Diminution of number of arbitrary cases where physicians felt fees were unjustifiably lowered.
2. Additional fees to be allowed for other than routine X-ray views based on cost of films and processing.

3. Proposed legislative changes as pertains to disability evaluation.

VII. Committee on Medical Care Armed Forces Dependents:

Dr. Dave Cogdell, Chairman:

1. Restoration of benefits January 1, 1960 made possible planned operations for dependents.
2. Seven and one-half million dollars paid in N. C. in past four years.
3. New regulation requiring submission of claims after completion of out-patient, post-operative and post-partum care.
4. Negotiations with O.D.M.C. in April and November 1960.
5. Recommendation to continue Committee activities.

VIII. Committee advisory to Student A.M.A. Chapters.

John P. Davis, M.D., Chairman:

1. A successful year—increasing interest.
2. National President S.A.M.A., Mr. Bill Waddell of Duke Medical School.
3. 1960 meeting attended by ninety students. Dr. Leonard W. Larson, President-Elect of A.M.A. was present.
4. One delegate from each S.A.M.A. chapter given financial assistance to National S.A.M.A. meeting in Los Angeles.
5. Recommendations for 1961:

A. Sponsor dinner meeting:

B. Provide transportation:

C. Provide funds for three student delegates to National S.A.M.A. meeting.

D. Schedule Alumni meetings Monday and Tuesday so that students may attend.

E. Student committee to work with Mr. James Barnes.

F. Invite Mr. Bill Waddell to speak before one of General Sessions in May.

Other Committees:

I. Ad hoc to study Blue Shield:

Dr. J. H. Shuford, Chairman:

(see letter of March 16, 1961, to all members of Society)

II. Committee on Relative Value Fee Schedule:

Dr. Everett I. Bugg, Chairman:

1. Relative Value Fee Schedule Completed.
2. Copies available on request to Mr. James Barnes.
3. Committee made permanent by action of Executive Council February 1961.

III. Committee on Nominations:

Dr. J. H. Shuford, Chairman:

1. Convened March 26, 1961:
2. Recommendations made and report submitted to Dr. Amos Johnson, President.

J. H. Shuford, M. D.

Chairman

REPORT OF THE COMMISSION ON THE ANNUAL CONVENTION

This report, covering the Society year to March 1, 1961, summarizes the work of seven committees.

- (1) THE COMMITTEE ON ARRANGEMENT OF FACILITIES FOR THE ANNUAL SESSION, John Rhodes, Chairman, has been concerned with implementing the resolution proposed by President Amos Johnson and adopted by the House of Delegates in May, 1960, which called for altering the program format to promote continuity of subject matter in the General Sessions and to stimulate member interest in them.

After much study the Committee recommended that the Society hold General Sessions on Monday, Tuesday, and Wednesday mornings rather than on only Tuesday and Wednesday mornings as in the past, and that of these three sessions the first two be devoted to scientific discussions and the third to a joint meeting with the State Board of Health, to topics of non-scientific medical interest, and to other Society business. This new format will be followed in the 1961 Convention. To correspond with the new schedule of the General Sessions, the House of Delegates will be in session Sunday, Monday, and Tuesday afternoons. Audio-visual programs and Section Meetings will be held on Monday and Tuesday afternoons. Scheduled activities of the Society will not extend into Wednesday afternoon.

The Committee also recommended that the format of the printed program of the Annual Convention be revised in an effort to make it more attractive and more informative.

The Committee also approved issuance of invitations to nurses, laboratory and X-ray technicians, physical therapists, and medical librarians through their several state organizations to attend scientific and technical exhibits and the scientific program. It also authorized early contact with representatives of appropriate news media to insure effective coverage of the 1961 convention.

- (2) THE COMMITTEE ON SCIENTIFIC WORKS, William Nicholson, Chairman, has functioned chiefly as a program committee for the General Sessions, working in conjunction with the Officers and with the Committee on Arrangements. The Programs for Monday, Tuesday, and Wednesday mornings, in effect, constitute this Committee's report.
- (3) THE COMMITTEE ON AUDIO-VISUAL SCIENTIFIC POSTGRADUATE INSTRUCTION, Leonard Goldner, Chairman, presented a program of illustrated instructional courses at the 1960 Convention. Members of the Committee

served as coordinators for the several sessions. The Committee has recommended that the 1961 Audio-visual Program be confined to Monday and Tuesday afternoons. Members of the Committee will discuss individual films and stimulate discussion from the audience. The proposed program will include ten motion pictures and occupy about five hours.

The Committee has continued its efforts to build up a comprehensive and practical listing of teaching films. It has received material from the medical schools of the state, other areas that produce motion pictures, and various listing agencies. It suggests circularizing the county medical societies to remind members that new films may be submitted for presentation on the 1962 program.

- (4) THE COMMITTEE ON SCIENTIFIC EXHIBITS, Ralph Coonrad, Chairman, has assembled a total of twenty-eight exhibits. Of twenty-two exhibits representing the work of original investigators, fourteen are of North Carolina origin.
- (5) THE COMMITTEE ON AWARDS, Lester Crowell, Chairman, has studied and judged the audio-visual presentations and scientific exhibits of the 1960 Convention. It has also evaluated eligible scientific papers of the 1960 Convention and has chosen winners for the awards which are to be presented at the 1961 Convention.
- (6) THE COMMITTEE ON CREDENTIALS OF THE DELEGATES, Tilghman Herring, Chairman, has carried out its function of checking Delegates' credentials, tabulating the roll call, and confirming the presence of a quorum. This was done at the 1960 Convention in Raleigh and at the called meeting of the House of Delegates February 26 in Durham.
- (7) THE COMMITTEE ON THE MEDICAL GOLF TOURNAMENT, William Brewton, Chairman, has made arrangements for the tournament to be held at the Country Club of Asheville May 8 and May 9. Appropriate prizes, including

the rotating golf trophy, are planned.

In conclusion it may be said that the several Committees of the Annual Convention Commission, led by capable and devoted Chairmen, have given much thought and energy to preparations for the 1961 Convention. Major changes in Committee policies in the near future are not anticipated. Minor changes in procedures, techniques, and communications are being entertained and explored. The Committees would welcome additional ideas and suggestions from the Membership.

Respectfully submitted,
R. B. Raney, M. D., Chairman
Commission on Annual
Convention

THE PROFESSIONAL SERVICE COMMISSION REPORT

Dr. George W. Paschal, Jr.,
Commissioner

The Commissioner of the Professional Service Commission submits the following resume of the six committees in this group:

1. Committee on Emergency Medical Service and Military Affairs:

Dr. George W. Paschal, Jr., Chairman

A. This committee formally met on September 30, 1960 at Mid Pines, North Carolina. The meeting was also attended by the Executive Secretary, Mr. James T. Barnes.

B. The Committee received a report from the Society's representative, Dr. James Davis, Durham, North Carolina, regarding his attendance at a course for the Management of Mass Casualties conducted by the Army at Walter Reed Hospital in Washington, D. C. The meeting was attended by a second member of our Society at his own expense. The experience of both seemed to be entirely worth while and it was felt that the Committee should recommend that the practice of sending others of our membership to the course on the Management of Mass Casualties should be continued. Consequently, it was recommended to the Executive Council that \$600.00

should be set aside in the budget for this purpose. Any one of the membership interested in attending this course is urged to communicate with the Chairman of this Committee.

- C. The Committee reviewed the activities of the efforts on the part of our Society toward preparedness for Disaster Medical Service and concluded that there was generally a lack of enthusiasm and interest, and certain counties of the state seemed to be well prepared from an organizational standpoint, but only from "dry runs" could adequate experience be obtained. The members of this Committee participated in two "Alerts" which were a part of the operations of the National and State Civil Defense programs, our efforts and participation received the commendation of the State Director of Civil Defense. The entire problem of Disaster Medical Service continues under the consideration of the Committee.
- D. The Chairman of this Committee, along with the Executive Director, and upon the suggestion of the President, attended the Eleventh County sored by the American Medical Association's Conference sponsored by the American Medical Association held in Chicago on November 4-6, 1960.
- E. These same two representatives of your Society attended a regional conference on the Committee of Emergency Medical Care held in New Orleans on February 18, 1961. At that meeting, representatives from each state within the Southeast reported on their activities and problems. The North Carolina Committee was one of the few which had established firm liaison between its Civil Defense program and the Department of the Army. It is the feeling of this Committee that our preparedness in North Carolina is equal to, if not superior to that of most

of our sister states.

- F. Your Committee has cooperated with the office of the State Director of Civil Defense and in turn, has received encouragement and many forms of help in furthering our program. It is strongly urged by this Committee that all of our membership take the problem of preparedness for Disaster Medical Service more seriously. If this is done, and adequate preparations are made, certainly, the survival rate of our people will be greatly increased. This itself would be a deterrent to any aggressor, and at the same time, would make us ready to care for survivors as a result of a natural catastrophe. Further development of this program at all levels is strongly urged.

II. Committee on Eye Care and Eye Bank:
Dr. George T. Noel, Chairman

- A. It has been a busy year. Principally, the business of M.A.A. implementation. The Eye Care Committee met at Greensboro in September at the time of the annual North Carolina E.E.N.&T. meeting. On December 6th, 1960 a called meeting was held with Dr. Ellen Winston at the Department of Public Welfare office. Mr. H. A. Wood and Mr. Jim Barnes were also present for this meeting.
- B. As a result of the above conference the Eye Care Committee cooperated with the North Carolina E.E.N.&T. Society Officers and the Committee on Government Fees in holding a called business meeting in Greensboro in mid-January. This meeting informed 47 of the North Carolina's E.E.N.&T. doctors what could be expected of M.A.A. implementation in this state.
- C. At the request of Council and President Amos Johnson the chairman of the Eye Care Committee appeared before the Council Meeting in Pinehurst on February 12th to outline some of the problems of the eye physicians in working with in-

digent and semi-indigent wards of the state and federal government.

- D. It is anticipated that additional meetings will be necessary next year.

III. Committee on Insurances:

Dr. Joseph W. Hooper, Chairman

- A. The Committee on Insurances for the State Medical Society met with the other Committees in Pinehurst in September, 1960. The program which the Medical Society of the State of North Carolina endorses were all reviewed and it was felt the program should be continued in force. Some discussion was made of the Professional Liability Program and it was decided to re-evaluate this program sometime in the Spring, as to the possibility of affecting reductions, depending upon the experience during the preceding 18 months. It was pointed out that at the present time any claims arising were referred to the Claims Manager of the St. Paul Company and these claims investigated by the panel of specialists working with Mr. Thompson of the St. Paul Company, in the area involved. This plan has worked very well in the past, and it was the Committee's feeling that this procedure be followed in the future.
- B. A proposal was submitted to the Insurance Committee by an agency in Morganton regarding the feasibility of the Medical Society of the State of North Carolina endorsing a group life insurance program. This problem has been reviewed in the past, and the feeling of the Committee is still the same. This feeling is that it is not practical for the Medical Society of the State of North Carolina to engage in group life insurance programs for two main reasons. These reasons are: the insurance laws of North Carolina make such a program particularly hard to qualify for, and secondly, the difficulty in administering such a program on the State

level, and it was the feeling of the Committee that this is where this type of insurance should be put into effect, if the component societies so desire it.

IV. Committee on Necrology:

Dr. Charles H. Pugh, Chairman

A. The Committee on Necrology met at the Conclave of Committees held at Mid Pines in the fall. This Committee has continued to perform its usual duties of listing all physicians who have died during the past year, at State Headquarters. Deaths for 1960-61 have been published in the roster with solemn designation. Additional information will be given at the time of the House of Delegates.

B. After discussion and upon approval of the Executive Council, it has been decided that there will be no change of time of the Memorial services. They will be continued on Sunday evening during the annual meeting in Asheville.

V. Physicians Committee on Nursing:

Dr. Robert R. Cadmus, Chairman

A. Although it has not been an active year for this Committee, our interest in nursing has not diminished, and in some respects, it appears that our relationship with the various official nursing organizations has even strengthened. Our interest and activities have concerned the following:

a. Nursing Legislation.

During our October 1, 1960 meeting at Southern Pines, our Committee reviewed our joint sponsorship of an unsuccessful bill for the support of nursing schools and nursing scholarships presented to the 1959 General Assembly and endorsed in principle new legislation for nursing scholarships to be presented to the 1961 Legislature by the State Nurses' Association. Fortunately, however, no specific bill will be necessary, since the request made

by the nurses to the Advisory Budget Commission was translated into the Governor's Budget proposal, and if unchanged, will appear as a routine expenditure in the Appropriations Act. A sum of \$25,000 for each year of the biennium already appears as a new line item in the "Student Loan and Scholarship Fund" section of the budget of the North Carolina Medical Care Commission. Specifically, it is intended "To Provide Annual Scholarships of up to a maximum of \$1,000 each to assist graduate registered nurses, pursuant to Commission regulations in obtaining collegiate preparation for teaching positions with accredited diploma schools of nursing in North Carolina". Although slightly less than requested, the State Nurses' Association reports that they are pleased with the amount and with the placing of administrative authority under the Medical Care Commission. It is reassuring that some progress is being made after so many unsuccessful attempts at securing nursing scholarships. It appears, that the Medical Society will not have to put any further effort on this matter, unless the Governor's recommendation is challenged, although we urge our 1961-62 Nursing Committee to assure itself that the new regulations promulgated by the Medical Care Commission will meet the interests of our Society. It appears that no attempts will be made to remove physicians from the State Board of Nurse Registration and Nursing Education, although this possibility always exists since North Carolina remains as one of only a few states with such representation.

b. Committee for Liaison with National Nursing Organizations.

Although we have no official re-

lationship to this A.M.A. Committee, Chaired by Dr. Cleon Nafe, North Carolina is honored to have Dr. Elias S. Faison as one of the five other committee members. Through his courtesy and interest, our members have had an opportunity to become better informed of national activities concerning nursing.

c. N. C. Committee on Nursing Education and N. C. Commission on Patient Care.

It has become traditional for these two organizations to meet concurrently, one in the morning, and the other in the afternoon; one devoted to nursing education, the other to patient care. Dr. Brockmann and Dr. Smith have long and faithfully supported the Society's interest in these deliberations. Although history demanded that these functions be separate, some of the Medical Society and Hospital Association representatives believe that it is now expedient to combine these sessions and to elevate the resulting group to a more useful and effective role. This suggestion has been formally made, hoping that a small study subcommittee would give this idea serious consideration.

d. Other Business.

Through correspondence or telephone communication, the committee or its Chairman:

- 1) Took cognizance of a new degree program in nursing affiliated with East Carolina College in Greenville.
- 2) Obtained for headquarters, detailed information on the American Nurses' Foundation and their national campaign for raising funds for nursing research.
- 3) Investigate and report on certain derogatory statements made against the A.M.A. in

the June 1960 issue of the *Tar Heel Nurse*.

- 4) Distributed copies of an excellent paper read by Miss Vivian M. Culver of the State Board of Nurse Registration and Nursing Education at our annual convention in Raleigh last May.
- 5) Generally, kept alert to events in nursing which could have a significant interest to North Carolina physicians.

VI. Committee on Postgraduate Medical Study: Dr. Samuel L. Parker, Jr., Chairman

- A. The Committee on Postgraduate Medical Study met in the living room Terrace Cottage, Mid Pines, Southern Pines, N. C., Saturday, Oct. 1, 1960, at 8:00 P. M. with the following members present: Samuel L. Parker, Jr., M. D., Chairman, William P. Richardson, M. D., Wayne J. Benton, M. D. and George W. Paschal, Jr., M. D., Chairman, PROFESSIONAL SERVICE COMMISSION.
- B. The Problems of Physicians' Continuing Education, Conference, Vol. I, No. I, August 1960, as presented in a colloquium that was held in New York on May 31, 1960 under the auspices of the Science Information Bureau was reviewed and discussed. It was interesting to note that the problems presented by this group were the same as those of our Committee.
- C. The status of organized and unorganized medical postgraduate offerings in North Carolina was evaluated. It was thought that we equalled in progress the progresses in the increasing knowledges and discoveries of medicine. In this southeastern region we were thought to be even ahead, however, there was not enough offered in depth. It was noted that there are courses listed in the AMA Journal in September and October. The responsibilities of

the State Society to the profession in relation to postgraduate needs of its members are to stimulate interest in postgraduate courses listed and to see that the courses are improved insofar as possible. It was pointed out that great progress has been made in medicine in the past 25 years and that the responsibilities of the State Society were decreasing with time. The greatest responsibility is to the men in the small towns who do not have the opportunity of attending the conferences and seminars that are offered in the larger cities.

- D. The "What Goes On" publication of Duke University adequately covers those postgraduate courses that are offered in Virginia, North Carolina and South Carolina, and is a very helpful organ. All physicians are on the mailing list.
- E. The UNC Extension Postgraduate courses are quite effective. The courses are well organized and are geared to the needs of the profession and the desires of the participants. There is an average of from thirty to thirty-five men attending each session. The Sixth Medical District has access to both Duke Hospital and the North Carolina Memorial Hospital and are able to participate in the teaching programs and attend the conferences.
- F. It was the opinion of the committee that a study - recommendation subcommittee - was not needed to exploit our needs and ways and means to effect essential programs.
- G. The committee endorsed the resolution of the Mental Health Committee that continued emphasis be placed on psychiatric postgraduate study both for specialists and family practitioners and offered its support to the Committee on Mental Health. The Committee asked Dr. Richardson if the University of North Carolina Extension Division would consider putting on this program as a

postgraduate course. Dr. Richardson stated that he was sure the division would and in turn asked for help from the Mental Health Committee to promote and collaborate the information.

- H. The committee suggests that, due to the change in times and threat of radiation, the Committee on Postgraduate Medical Study should make every effort to keep abreast of Civil Defense and be in a position to advise doctors and population of survival methods. This would be a wonderful opportunity to bring information, to administer precautions, and to give instructions to patients. There are new horizons for the medical profession in this field. The committee was asked to consider a program to inform doctors on how to manage in the event of a fallout - self sufficient for survival. This would render a great service to the people of North Carolina.

Respectfully submitted,
George W. Paschal, Jr.,
M. D.
Commissioner

REPORT OF PUBLIC RELATIONS COMMISSION

For details of the Committee report, I refer to the reports of the Chairmen of the various committees.

The Medical Legal Committee under the able chairmanship of Dr. Julius A. Howell has had regular conferences and have increased the scope of their activities so far as promoting liaison between the Medical Society and the State Bar Association. A number of meetings have been held throughout the state on a county level between the Bar Association and the County Medical Society with mutual benefit reported.

The Committee on Public Relations has had an extremely satisfactory year. Dr. Edgar T. Beddingfield serves as Chairman of the Committee, and with his usual vigor and insight, he has conducted the affairs of the Public Relations on a very high plane.

are others which will be introduced by people not in medicine that will require the vigorous opposition of this Committee. The Committee is indeed fortunate in having the advice and counsel of Mr. James T. Barnes and Mr. John Anderson in this regard.

The Committee on Hospital and Professional Relations, under the chairmanship of Dr. Theodore H. Mees, has had a very successful year. Fortunately, there has been little contention and the committee reports progress.

This report is respectfully submitted. For details of the individual committee reports, the reader is referred to the detailed reports of the individual committees.

Respectfully submitted,
Hubert M. Poteat, Jr., M. D.
Commissioner, Public Relations
Commission

PUBLIC SERVICE COMMISSION REPORT 1960-1961

JOHN R. KERNODLE, M.D.,
Chairman

1. Committee on Anesthesia Study:

This Committee did not meet during the year but has continued its study on deaths involving anesthesia. Last year, Dr. Davis reported on the five year study and requested to have accumulated data published in the Medical Society Journal as information for physicians within the state.

2. Advisory Committee to the State Board of Public Welfare:

This Committee held two meetings during the year. At the first meeting, attention was given to the broad expansion program of services of the State Board of Public Welfare and its proposed requests to be submitted to the 1961 General Assembly.

Included in the discussion were:

- (a) increased hospitalization payment from \$10 to \$12 per day recipients.
- (b) increased State funds to pay 15% of the cost of county public welfare administration.

The meeting of the newly-elected County Society officers in January was delayed because of the weather for 2 weeks, and there still was an excellent representation at the meeting, and a fine program was presented.

The Committee on Rural Health, under the chairmanship of Dr. Vernon Jeter, has continued its excellent work in promoting liaison between the Home Demonstration groups and other groups comprising rural population.

The General Practitioner award which a few years ago was considered a thing of the past has again risen in scope and characted, and a number of counties have proposed physicians for this award. The Committee is to be commended for promoting this Public Relations feature again.

The Committee for liaison with the insurance industry, under the extremely capable chairmanship of Dr. Frank W. Jones, has had regular meetings during the year with representatives of the insurance industry. As a result of these meetings, the relationship between the medical profession and the insurance industry has been greatly enhanced. There is at present under consideration, by the insurance liaison committee, a proposal for expanding the sale of the doctors plan through private insurance companies. This matter is at present time under study by the Committee and details will be seen in the report of the Committee Chairman in this compilation.

The Committee on Legislation, under the chairmanship of Dr. Edgar T. Beddingfield, has had quite a busy year. Representatives of the Legislative Committee attended a conference at Hershey, Pennsylvania, of the Eastern Regional political Action Council of the American Medical Association. Members of the committee also attended the briefing in Washington, D. C., relative to the Mills-Kerr Bill. A number of meetings have been held with other committees of the Medical Society seeking to implement the provisions of the Mills-Kerr Bill. This being a legislative year, the activity of the committee on the local scene is just beginning. There are a number of Bills that ought to be introduced which will require and receive the support of this Committee in the Legislature. There

- (c) elimination of present restrictions as to the length of time allowed for payment in nursing homes for recipients.
- (d) new classification for licensing family care homes by welfare department.
- (e) need for amendment to present day-care laws to give more adequate protection.
- (f) other programs involved medical examinations of children and adults in group-care facilities; revision of existing medical forms for more complete information; recommendation to have all children properly immunized if cared for in any type of day-care facility and older people to have routine chest x-rays and periodic health check-ups; increased payment for Disability Payments and for consultation fees; and discussion of a more uniform price on selected drugs most frequently prescribed for older persons who are recipients of public welfare assistance.

The second meeting held in Mid Pines on September 30, 1960 gave emphasis to the discussion of the Mills-Kerr Bill and the implementation in and for North Carolina. Also, Dr. Dewar, physician staff member of the State Board of Public Welfare met with the Committee and discussed some of the problems connected with the examination and evaluation of disability claims. The film, "The Disability Decision" was shown and discussed at length by this Committee.

Since October, 1961, the Chairman and members of the Advisory Committee to the State Board of Public Welfare have met with officials of the Medical Society and with other Committees concerned with the formation and implementation of the Mills-Kerr Act for the State. This Committee is fully aware of the Medical Society position on this legislative program.

3. Committee on Cancer:

This Committee met in Mid Pines on September 30, 1960. Dr. D. F. Milam, Consultant from the State Board of Health made a statistical report on the cancer detection clinics and centers and raised the question of physicians sending in smears to the State Board of Health for reading. It was the consensus of opinion of the Committee that only smears on indigent and medically indigent patients be sent to the State Board of Health for reading.

Physicians had access to other laboratories for paying patients. A sub-committee was appointed to study this situation and report back to the Committee. Dr. Charlie Harris was appointed Chairman, with Dr. C. G. Mock and Dr. Dave Pressley to serve on the sub-committee.

The Chairman reported on a marked increase in the number of Pap Smears being taken by private physicians. The Committee was encouraged over this response by practicing physicians and the number of county medical society meetings held to discuss this detection and preventive measure.

Mrs. Donald S. Stone, Executive Director of the State Cancer Society was present and presented the major activities being promoted by physician and lay leaders of the Cancer Society through its county units and the State Office. Her report showed definite progress in county efforts, medical participation and leadership, and the decentralization of the Cancer Society program away from headquarters office and more to the individual units in the state. She urged the continuing leadership and cooperation of the physicians in furthering the work of the Cancer Society in N. C.

4. Committee on Child Health Study:

The work of the Child Health Committee has been confined to the continuation of the Neonatal Death Study which has been carried on for several years under the combined auspices of the Child Health Committee and the Maternal Welfare Committee. At the pres-

ent time, the Committee is in the process of compiling figures for the four year study and such data will be published and sent to the individual hospitals and clinics which have participated in this study. It was agreed at the meeting at Mid Pines on October 1, 1960 that it would not be possible to extend the study to include all infants born in the state, and that the study would be continued on the same basis as that of confining it to hospitals and clinics delivering more than 100 living infants annually.

The A.M.A. has announced a Perinatal Mortality Study and there is some question as to that study duplicating the Committee's Neonatal Death Study. The Committee anticipates no change in its present study for the year 1961, and will await further developments of the A.M.A. Study before making any change in their present study and evaluation. The Chairman and one member of the committee attended an A.M.A. Area meeting in Atlanta, Ga., on February 19, 1961 at which time this proposed Study was presented and discussed. Physicians serving on Child Health and Maternal Health Committees in the Southeastern Area were invited to attend.

5. Committee on Chronic Illness:

This Committee has been one of the more active committees of the State Society during the year, due to pertinent legislative actions at both the national and state levels. The implementation of the Mills-Kerr Act in and for North Carolina has been the major objective of the Committee. Closely tied in with this legislative program, has been the Governor's Conference on Aging and the White House Conference on Aging. The third major goal completed in 1960 was the Hospital Discharge Study for 1959-60, a joint project between the Medical Society, the N. C. Hospital Association, and the N. C. State Board of Health. This study was printed by the Hospital Saving Association and copies are available upon re-

quest to the Chairman of the Committee and/or headquarters office in Raleigh. The Hospital Discharge Study has proved helpful to the Committee and other members of the State Medical Society in studying and evaluating realistic health and medical care needs of our older citizens.

In October 1960, the Executive Council authorized and empowered the Committee on Chronic Illness to serve as liaison and study committee for the purpose of formulating and implementing the Mills-Kerr Act in and for North Carolina. Recommendations were to be made to the Executive Council and in turn, to the House of Delegates for action. Close liaison has been maintained with the officials of the society, legislative committee, Executive Council, state agencies, other health disciplines and service organizations during the past year. Recommendations made by the Committee have been made to the Executive Council, approved and taken before the House of Delegates as of February 26, 1961, and adopted. A State Bill has been drafted and will be introduced into the General Assembly late March or early April. Recommendations for: 1. no request for professional vendor payments are being made at this time, 2. funds for reimbursable cost for hospitalization (\$20 per diem). 3. dental service and facility charges, 4. selected drugs and 5. out-patient service and facility cost are being requested in the Bill, with a strong request to have an Advisory Council appointed, representing the Medical Society, Dental Society, druggist, hospital administrators, and county commissioners. Final action will be determined by the General Assembly.

This assignment has taken time, study, and much negotiation on the part of the Committee and its Chairman and it is the hope that the recommendations and the State Bill proposed by the multiple-discipline group will be enacted in 1961 by the General Assembly.

The Committee has as one of its objec-

tives next year, 1961-62, a re-survey of the physicians as to the health needs, existing facilities and services, and additional services needed by the chronically ill and aged persons in the state. Improvements have been made in the type of care received by these patients and it is the recommendations of the Committee to strengthen and improve Home Care Services programs and out-patients services as a means of more adequately meeting the health and medical care needs of these patients without unnecessary hospitalization which is costly to the individual and to the public. Such a survey was made in 1957, another attempt was made in 1960, with poor results, therefore; the Committee voted to make another survey in 1961-62.

The contacts established by the Committee Chairman and its members during the past year in the interest of improved health and medical care services and financing of such care will be continued.

6. Committee on Polio:

The Committee had no reason for holding a meeting during the year as they had the assurance that funds for the purchase of poliomyelitis vaccine for 1961-63 would be made available to the State Board of Health. Such funds had been allocated by the 1959 General Assembly out of the Contingency and Emergency Fund for each year of the past biennium and this procedure will be necessary for each Assembly biennium as long as there is need for free vaccine to implement our compulsory program.

The Committee continues to urge physicians to immunize with Salk Vaccine to the utmost of their abilities.

7. Committee on Occupational Health:

The major function of the Committee in 1960 was the A.M.A. Congress on Industrial Health which was held in Charlotte, N. C., October 9-11, 1960. The Society's Committee served as host to this national meeting and *deserves special recognition* for a job well done.

Credit is given to Dr. John Kester, Chairman of the Mecklenburg County Society's Committee on Industrial Health and his Committee and to the Greater Charlotte Occupational Health Council for their contributions to and for this annual A.M.A. Congress.

The Committee is most appreciative of the work contributed by Dr. W. L. Wilson, Chief of the Occupational Health Section of the N. C. State Board of Health. Through the efforts of Dr. Wilson and other committee members, a mimeographed monograph entitled, "Industrial and/or Compensation Medical Practices", has been distributed to all county occupational Committee Chairmen and to other states. Also, a new printed brochure entitled, "Better Occupational Health For North Carolina" has been produced and distributed upon request.

The Committee met in Charlotte during the A.M.A. Congress, and held a brief session in Mid Pines on October 2, 1960 to make final plans for the Congress meeting in Charlotte. The annual meeting of the Governor's Council on Occupational Health was held in Raleigh on January 27, 1961, but due to ice and snow, the attendance was far short of that anticipated. It was re-reported at this time that Dr. Benny Goodman of Hickory, N. C., has the organization of the North Carolina Chapter of the Industrial Health Association well under way. More will be reported on this next year.

The address of President Amos N. Johnson, M.D., at the opening session of the A.M.A. Congress meeting in Charlotte, was requested for reprint in one or more of the national magazines giving primary focus to occupational and industrial medicine.

8. Committee on School Health:

The Advisory Committee on School Health has been very active at the local and state levels during the past year. Members have stimulated local societies to appoint county school health committees, promoted close liaison with local

and state P.T.A. groups with special attention give into continuous health supervision of the child from birth through school by the private physician. Forms for reporting these examinations have been devised and distributed on a demonstration basis.

The State Committee has studied current health textbooks and made its report to the proper authorities. Another continuing project of the Committee is its cooperation with the Youth Fitness Commission. A demonstration program was conducted in Sanford, N. C., during March and April, 1960 as one of the test sites for the Youth Fitness program. Special programs were conducted in Sanford, N. C., during March and April, 1960 as one of the test sites for the Youth Fitness program. Special programs were conducted on Saturday morning and the school officials reported the program had been most worthwhile.

The major function of the Committee during the year was sponsoring the State School Health Conference in Raleigh on October 22, 1960. This was the third such state-wide conference to be sponsored by the Medical Society's Committee on School Health. The program content was excellent and the attendance was much better than in 1957. There was much enthusiasm expressed by those parents, teachers, physicians, and health agency personnel who attended.

The Committee met following the State Conference and made the following recommendations:

1. Biennial Conference on School Health be continued at the state level and county conferences promoted by county medical societies.
2. Continued support and cooperation with the P.T.A. sponsored program of continuous health supervision by private physicians.
3. The Committee to continue its cooperation with the Youth Fitness Commission.
4. Committee to pay attention to the

health textbooks used in the schools, review them periodically and offer constructive criticism to the authorities.

5. Contact to be made through State Supt. of Public Instruction with a request to have School Health a part of the Annual Conference for Superintendents and Principals held at Mars Hill, N. C., each summer.
6. Continue to encourage local medical societies to appoint school health committees to work with the school personnel, P.T.A.'s and other interested health agencies.
7. The name of the Committee to be changed from Advisory Committee to School Health to the *Coordinating Committee on School Health*. The Committee recommends the change in name to denote a more *active* participation on the part of the Medical Society in matters pertaining to School Health activities and functions.
9. Committee on Maternal Health:
The Committee held two meetings during the year, one in Asheville in July, 1960 and in Mid Pines on October 1, 1960. Recommendations made at the October 1 meeting included preparation and distribution of a questionnaire to investigate the quality of ancillary services provided obstetric patients in selective hospitals in N. C. This resulted from a discussion by committee members who expressed their concern over the quality of care now being rendered in some hospital. Dr. Leonard Roach of Asheville was appointed Chairman of this study committee and serving with him, Dr. William Wellborn of Morganton, Dr. Joseph May of Winston-Salem, and Dr. Ray Silverthorne of Washington.
The maternal death study is a continuing project of this committee and deaths are reported each month by map in the North Carolina Medical Journal.
The study of live births and maternal deaths indicated: 1. decreased number of births in 1960 as compared with 1950.

2. continued rise in the number of deliveries or livebirths occurring in the hospital with a decrease in number of births in the home attended either by a physician or midwife; 3. the number of midwives practicing in the state has been reduced by two-thirds, yet the number of deliveries by midwives has been reduced by one half; 4. recognized drop in the number of deaths (maternal) due to toxemia of pregnancy; 5. increase in the number of deaths due to pulmonary embolism and an increase over the past two years in the number of deaths due to infection; 6. two-thirds of the maternal deaths occur among the non-white.

The Committee continues to be aware of the problem of "population explosion" and the problem of adequate physician personnel to handle the anticipated increase in the number of deliveries. A detailed study of this problem has been made by the Committee as to existing physician services and the projected needs for the next decade. Information can be obtained from the Committee Chairman.

The Chairman of the Committee is also a member of the A.M.A. Committee on Maternal Health and has participated on area conferences during the past year discussing the proposed demonstration project of Perinatal Mortality. One of the area conferences was held in Atlanta, February 19, 1961. The Chairman and several of the State Committee members attended and participated in this conference.

10. Committee on Physical Rehabilitation: No formal meetings of this Committee have been necessary during the year as the Chairman and the Committee members have maintained close contact with the Vocational Rehabilitation Division in the state and has handled matters connected with this Division and other allied service programs, as have been referred.

11. Committee on Mental Health: The Committee met in Mid Pines in October 1960 at which time Robert Fink, Mental Health Section of the

N. C. State Board of Health, presented and discussed the Section's request for additional funds under the "B" Budget of the 1961 General Assembly.

Included in this "B" budget request was funds to employ a psychiatrist as the Director or Chief of the Mental Health Section of the State Board of Health. A request for one additional mental health clinic per year was included with increased funds to expand present clinic programs and personnel. The Committee accepted this report as information.

The Committee renewed its request to the Post-graduate Study Committee of the State Medical Society to have courses on Mental Health included as part of the post-graduate program. Such a recommendation has been made to the N. C. Academy of General Practice. One of the Committee members reported this participation in postgraduate programs within the state and recommended an increase in this type of training, especially for the General Practitioners in the state.

The Committee met again in Raleigh on March 19, 1961 to consider proposed legislation related to the Certification of Psychologist and to give further consideration to the State Board of Health's request for additional state funds for expanding its mental health clinic program.

Action taken by the Committee:

1. The Committee recommended that the Medical Society continue its opposition to the Bill requesting State Certification of Psychologists and renewed its recommendation made two years ago that the Psychological Association set up its own Board of Certification which could accomplish the same goals as proposed in the State Bill, and that legislative action by the State was not necessary or desirable. The Mental Health Committee opposes the Bill on the basis that it does not protect the public but rather it is a protection for the psycholo-

gists.

The Committee also opposed adding any restrictive clause to the Bill as had been suggested by a member of the House of Representatives.

2. The Committee went on record as favoring the request for additional State Funds to expand and increase Mental Health Clinics in the state. At the same time, the Committee expressed their favor of having such clinics placed back under the direction and supervision of the State Board of Hospital Control rather than the U. C. State Board of Health. No formal action to this suggestion has been recommended outside of the Committee itself in expressing its preference of administration.

12. Committee on Veterans Affairs:

Two Committee meetings were held during the year, February, 1960 and March, 1961. In June 1960 a new contract was signed with the Veterans Administration for a one year period. The Committee has continued to operate with the intermediary, Hospital Saving Association, even though this has been contested by the Veterans Administration since 1959. The Committee has major criticisms of the new contract, justly sound, yet the participation by N. C. physicians is far above the percentage participation in other states. Reports for 1960 show that an average of 1,207 veterans were treated per month by 402 physicians at an average cost of \$13.39 per veteran. The Committee reports this a rare demonstration of economy in government and is proud of the N. C. service report. The V. A. has begun negotiations for the next annual contract and again, the Committee plans to oppose the direct payment of physicians by the V. A. and to maintain the intermediary. The Committee recommends that the Medical Society study H. R. Bill 7965 which was passed, and for the first time permits non-service connected veterans to have their diagnostic studies carried out on

an out-patient basis prior to admission to the hospital for definitive treatment. This law increases efficiency, but at the same time, adds the equivalent of 5,000 hospital beds for non service connected veterans.

The Committee further commends consideration given by the Medical Society to form some type of a Commission, devoted to the problem of all phases of government medical care, county, city, and federal, and if need be, consider the employment of a full time person to study all programs involved and transmit information to the appropriate committee for action.

COMMITTEE ADVISORY TO THE AUXILIARY AND ARCHIVES OF MEDICAL SOCIETY HISTORY

This Committee through its Chairman has been in frequent contact with the President and Officers of the Auxiliary during the past year. They have consulted us on matters of policy and new programs.

The Auxiliary has many worthwhile projects. I can only briefly mention a few of the most important.

A. MENTAL HEALTH RESEARCH ENDOWMENT FUND.

Your Committee feels that the Mental Health Research Endowment Fund program, the earnings from which the endowment fund is to be given yearly to the Psychiatric Department at Memorial Hospital of the University of North Carolina and to be used at the discretion of the Director of the Department of Psychiatry for any needy purpose in the field of research is an important step toward dealing with one of the most critical problems of our time. This project is to replace the Sanatoria Bed Endowment Fund project. This project is one in which all County Auxiliaries can participate, regardless of age, size or experience.

B. PARAMEDICAL CAREERS, RECRUITMENT AND SCHOLARSHIPS.

The object of this project is to develop a State-wide program through which every boy and girl in High School throughout North Carolina can well be informed as to

the opportunities that Health Careers offer. We feel there is a great demand and need for these services from the public.

C. SAFETY AND EDUCATION IN USE OF DEVICES FOR OLD PEOPLE AND HIGHWAY SAFETY.

This program has been active for the past four years. We have been particularly interested in the new phase of this program (SWAT) meaning, Safe Water Activity Training and one of the musts for 1960, especially when we realize the following:

- 1—300,000 American families have swimming pools.
- 2—71½ million boats in use today.
- 3—26 million persons go fishing each year.
- 4—Skiing and skin diving has become one of the most popular sports.

It is predicted that within the next few years 40% of the population of the United States will be participating in some phase of these sports.

D. DISTRIBUTIVE EDUCATION, HEALTH MATERIAL THROUGH ALLIED WOMEN'S ORGANIZATIONS.

E. STUDENT LOAN FUND.

F. A.M.E.F.

ARCHIVES OF MEDICAL SOCIETY HISTORY.

I am happy to say that your Committee has been hard at work throughout the year and has realized more and more that many North Carolina Physicians were true pioneers in their respective fields and many medical "firsts" have been achieved in the State. We are completing many important records and memoirs that will be of untold value to the Medical Society in the years ahead.

We are deeply grateful for both the financial and moral support given your Committee throughout the year.

Respectfully submitted,
Roscoe D. McMillan, M. D.,
Chairman.

REPORT OF COMMITTEE ON AMERICAN MEDICAL EDUCATIONAL FOUNDATION

The Committee on American Medical Association Educational Foundation is glad to

make the following report of its activities for the past year.

As you will not this is the first year since the committee has been organized that the report is in any way encouraging.

1957-1958	\$5,690.00
1958-1959	\$5,388.00
1959-1960	\$6,325.00
1960-1961	\$17,081.50

You will note that this year we almost tripled our AMEF giving. Although still three to four thousand dollars less than our three schools receive from AMEF each year.

This increase in giving through AMEF to our Medical Schools by the North Carolina doctors is in a great measure due to the interest taken by doctor's wives through the Auxiliary and by further educating the doctors through the personal letter sent out with information relative to the program by the State Office bearing the signature of the AMEF committee.

It is the feeling of the committee that we are beginning to roll, and as evidence of further success I might add that in January \$3,600.00 was sent in which is not included in the above figure.

The Auxiliary is deeply grateful to the State Medical Society for the financial assistance awarded us, especially for 1960-1961.

The committee feels that education through personal letter, Public Relations notes and State Journal is a must.

A long conference was held with Mr. Jay Oliver, Field Director of the A M E F during the year. He seems to understand our problem and was very encouraging in his remarks as to our progress.

Your AMEF committee wishes to thank Mr. Barnes, Hilliard, home office staff and particularly Mrs. Hitch and ladies of the Auxiliary for their splendid work and participation in the AMEF program.

Respectfully,
Ralph B. Garrison, M. D.,
Chairman
William LeRoy Fleming, M. D.
J. Bivins Helms, M. D.
Harry L. Johnson, M. D.
Manson Meads, M. D.
William Petteway Peete, M. D.

REPORT OF THE COMMITTEES ON ARRANGEMENTS FOR THE ANNUAL CONVENTION

The Committee on Arrangements for the One Hundred Seventh Annual Annual Meeting of the Medical Society of the State of North Carolina met in conjunction with the Fall Meeting of Committees at the Mid Pines Club Friday, September 30, 1960, with the following present:

Amos N. Johnson, M. D.
George G. Gilbert, M. D.
Jack C. Horner, M. D.
James T. Barnes
John S. Rhodes, M. D.

Plans were considered for the Annual Meetings to be held in Asheville, May 6 to 10, 1961. Convention functions will be centered in the George Vanderbilt and Battery Park Hotels. The adjoining Auditorium will be the site of scientific and technical exhibits, the General Sessions, the Meetings of the House of Delegates and the President's Banquet and Ball. Headquarters of the Auxiliary to the Medical Society will be at the Manor Hotel. The party for technical Exhibitors will be staged at the Asheville Country Club.

The Committee gave primary consideration to alterations in the format of the General Sessions Program directed by the resolution, proposed by President Amos N. Johnson and adopted by the House of Delegates, May 1960, designed to promote continuity of subject matter and to stimulate member interest in and attendance at the General Sessions. Dr. William Nicholson's Committee on Scientific Works will be responsible for formulation and direction of this program. General Sessions will be held on Monday, Tuesday and Wednesday mornings, 9 to 1 o'clock. A 30 minute recess will occur during each morning session. Monday and Tuesday sessions will be devoted primarily to scientific discussions while the Wednesday session will consist of the Conjoint Meeting with the State Board of Health, one or more non-scientific topics of interest to physicians and other society business.

In order to encourage attendance at scientific and technical exhibits, the registra-

tion booth will be set up at the rear of the auditorium.

Audio-visual programs interpolated, where possible, with the scientific sessions, and section meetings will be available on Monday and Tuesday afternoons.

The Memorial Service will be held according to custom on Sunday evening, May 8th.

Recommendation was made that the program bulletin format be revised to render it more attractive and informative, including photographs and biographical sketches of speakers and such advertisements as may be secured to defray costs of publication.

Invitations to attend scientific and technical exhibits and the scientific program will be extended to Nurses, Laboratory and X-ray Technicians, Physiotherapists and Medical Librarians through their several state organizations.

Dr. George Gilbert was authorized to establish advanced rapport with Asheville news media in order to insure effective news coverage of the convention.

The proposed changes in the format of the General Sessions will alter the time of meetings of the House of Delegates. The first meeting of the House of Delegates will convene Sunday, May 7, at 2 P.M. and recess at 5 P.M.; reconvene Monday, May 8, at 2:30 P.M. and adjourn at 5 P.M. The second meeting of the House of Delegates will convene Tuesday, May 9, 2:30 P.M.

It is anticipated that recent completion of highway construction and improved airline facilities will ease transportation to Asheville.

Respectfully submitted,
John S. Rhodes, M. D., Chairman
Theodore S. Raiford, M. D.
Walter Spaeth, M. D.
George G. Gilbert, M. D.
Jack C. Horner, M. D.
R. Stuart Robertson, M. D.

AUDIOVISUAL AND POST-GRADUATE INSTRUCTIONAL COURSE REPORT

J. LEONARD GOLDNER, M. D.,

Chairman

Raleigh, N. C., 1960

The Audiovisual and Postgraduate Instructional Courses were held in the Student

Union Building, North Carolina State College campus, on Sunday through Tuesday, May 2 through May 4, 1960. The size of the room and the facilities were satisfactory. Projection equipment and projectionist were available, and all films had arrived for showing.

Members of the Committee served as coordinators for individual sessions.

On Sunday, the attendance was low; total count being about twenty-five individuals. Many of the doctors stated they had difficulty in locating the auditorium. On Monday the attendance was up to about sixty, and on Tuesday about fifty.

Names of the Society members were recorded on printed cards as they entered the room, and their comments were requested. This was a help in deciding upon the following year's program and this same routine should be continued in 1961. The card should give the name, address, type of medicine that the physician does, and his comments about the individual motion pictures.

The low attendance on Sunday suggests that showing should be on Monday and Tuesday only, with Sunday and Wednesday eliminated. The proposed program for 1961 will include ten motion pictures with a total time of about five hours.

A film reference guide from Medicine and Allied Sciences has been received. This lists practically all motion pictures put out by commercial companies or other producers up to June of 1959, but excludes individual productions. This is an aid in selecting material for the annual program but is not adequate for complete planning because it contains much material that is not usable.

Material has been received from the medical schools in the State and from other areas that produce motion pictures. Most of these films are not usable because of the special circumstance involved in showing them. It would be wise in 1961 and early 1962 to circularize a notice to the county medical societies, reminding the members that any film production could be submitted for presentation on the 1962 program.

The format of the program for 1961 will follow that of 1960. The discussion of the individual films will be carried out by the

members of the appointed committee, who will attempt to stimulate discussion from the audience. No panel or invited speakers are on the program, as in the past this has been an imposition because of the relatively small audience.

It is recommended that the program for 1961 take place on Monday, May 8, and Tuesday, May 9, excluding Sunday afternoon of May 7 and Wednesday afternoon of May 10. Past experience has shown that the Sunday meeting in Asheville was poorly attended as was the Wednesday meeting.

It is recommended that the films be shown in an easily accessible room just off the lobby of the central hotel in Asheville. There should be adequate provision for air conditioning and for complete darkening of the room. Registration cards should be available and seats for one hundred individuals will be necessary. Projection equipment in the past has been managed very well by Mr. Emory Hunt and his group.

An informal survey can be made during the 1961 meeting in an effort to determine whether the Sunday showing should be resumed.

Respectfully submitted,
J. Leonard Goldner, M. D.,
Chairman

REPORT OF COMMITTEE ON AWARDS

The Committee on Awards has, in accordance with the rules laid down for its guidance, studied and judged the motion picture presentations, the scientific exhibits and other audio-visual presentations of the 1960 annual convention of the Society in Raleigh, and also judged the merits of the scientific papers of the 1960 convention eligible for awards. The task was not easy, but we have selected a winner for each of the awards. The awards will be presented to the winners publicly at an appropriate time during the 1961 convention of the Society.

The Committee hopes that some method can be devised whereby copies of all eligible scientific papers can be provided for each member of the Awards Committee, which copies can be simultaneously sent to each member of the Committee as soon as they can be prepared after each annual conven-

tion of the Society.

Respectfully submitted,
L. A. Crowell, Jr., M.D.
Acting Chairman,
Committee on Awards

REPORT OF THE COMMITTEE ON SCIENTIFIC WORKS

This committee held three meetings during the year, the first being on June 29, 1960, during which the general outline of the program for the May meeting of the State Society was discussed, and a general plan of the program outlined.

The second meeting of the committee was held at Southern Pines, with Dr. Paul Maness acting as Chairman, on September 30, 1960.

The third meeting was held at the Headquarters in Raleigh on October 27, 1960, where the final program was outlined in detail.

W. M. Nicholson, M. D.,
Chairman

REPORT OF THE COMMITTEE ON BLUE SHIELD 1960-1961

By appointment of Dr. Amos Johnson, President, the Blue Shield Committee was composed of the following members:

W. Z. Bradford, M. D.
William J. Cromartie, M. D.
Willard C. Goley, M. D.
John R. Hoskins, M. D.
Julius A. Howell, M. D.
E. E. Menefee, M. D.
John W. Morris, M. D.
Max P. Rogers, M. D.
J. H. Shuford, M. D., *Chairman*

The Committee met five times in regular session and once in a special called session. At the five regular meetings routine matters were discussed and numerous individual, unusual, or questioned claims were adjudicated. The special called session met in Greensboro, North Carolina, on 15 January 61 in response to the request of Dr. Johnson and Dr. John Kernodle to assist in the recommendation as to fee schedules in regard to implementation of the Kerr-Mills Act in

North Carolina. The recommendation of the Committee was as follows:

1. In-Hospital Fees:

Medicare Schedule to be used as a basis of negotiation.

2. Out-Patient Fees :

First office visit, requiring complete history and physical 20.00
Subsequent office visits 4.00
Home Visit, day or night 10.00

Fees for office X-rays, laboratory tests, physical therapy, etc., provided on an office basis, to be derived from the Medicare Schedule.

Perhaps the most important change in the Doctors Program concerned the Medical Rider. After long and deliberate negotiation with the North Carolina Society of Internists, North Carolina Academy of General Practice, and the North Carolina Society of Pediatrics, payment for In-Patient care of Non-Surgical and Non-Obstetrical cases has been extended to include first-day coverage. This was accomplished by a co-insurance clause making the patient responsible for 50% of the scheduled fee. Of course, the Medical Rider premium was necessarily increased in order to make this coverage actuarially sound (see Exhibit # 1).

Other changes included increased allowances for diagnostic X-rays under the Radiation Rider. The allowances were increased from 50% to 80% without any increase in the cost of the Rider. Further changes included benefits for traumatic injury, removal of verrucae, and a complete change in nomenclature and fee schedule as regards certain Ear, Nose, and Throat procedures (see Exhibit # 2).

The problem and question of liability by Blue Shield for professional services rendered by Residents and Internes, in the name of Staff Physicians, was discussed at length. The Committee reviewed this problem on two occasions and delineated rather clearly the requirements for payment of such claims. The requirements are as follows:

1. That the private Physician know before the act is performed that he is legally and professionally responsible for the medical care provided.
2. That the claim form be submitted open-

ly, by stating thereon, that the service was provided in whole or in part by a Resident and that the claim is submitted in the name of the responsible Physician.

3. That payments be made only for services rendered by Residents; no payment being authorized for services rendered by Internes.

The Committee acted to allow Hospital Saving Association to publish a list of participating Physicians to interested parties, with the statement included, that non-participating Physicians would accept the stated fees on an indemnity basis.

The Blue Shield County Consultants Program has been well implemented. Practically every county now has a Physician who has agreed to act in this capacity. It is hoped that this program will lead to greater understanding of Blue Shield by both the public and Physicians.

I wish to thank the members of the Blue Shield Committee for their cooperation, loyalty, and dedication to the advancement of pre-paid voluntary health insurance as reflected in the Blue Shield program. Also, the Committee wishes to thank the lay representatives of Blue Shield for their cooperation and understanding in the solution of problems as they arise in regard to the Doctors Program.

Respectfully Submitted

J. H. Shuford, M. D., Chairman

Exhibit No. 1

North Carolina Society of Internal Medicine

January 27, 1961

The North Carolina Society of Internal Medicine, through the Medical Services Committee, proposes a new Blue Shield Medical Rider which will improve the present coverage for non-surgical and non-obstetrical admissions.

The schedules listed give, for comparison, both present and proposed benefits payable under the medical rider.

Benefits are payable to any licensed physician. A participating physician agrees to limit his charges to the specified maximum in the Service Plan, the burden of proof being on the patient to show that his income is below the specified limit at the time the service is rendered.

Where both medical and surgical care are involved at the same time in the same case, no change in current policy allowing 75% of each claim is proposed.

No other changes are proposed in any benefits now listed.

As used below, 'Plus' indicates the maximum amount which may be billed directly to the patient in addition to benefits payable, if the doctor is a participating physician.

NCSIM FEE SCHEDULE			Plan: SERVICE Income Limit: 3000 Individual 4200 Family				INDEMNITY No income limits			
			Present		Proposed		Present		Proposed	
Day	Units	Value	Pays	Plus	Pays	Plus	Pays	Plus	Pays	Plus
1	4	20.00	0	No limit	10.00	10.00	0	No limit	10.00	No limit
2	3	15.00	0	" "	7.50	7.50	0	" "	7.50	" "
3	2	10.00	5	0	5.00	5.00	8	" "	5.00	" "
4	1	5.00	5	0	5.00	0	8	" "	5.00	" "
5	1	5.00	5	0	5.00	0	8	" "	5.00	" "
6	1	5.00	4	0	5.00	0	5	" "	5.00	" "
7	1	5.00	4	0	5.00	0	5	" "	5.00	" "

No maximum

Benefits payable to a maximum 70 days for one confinement

ROY S. BIGHAM, JR., M. D.
Secretary, NCSIM

Exhibit No. 2

Blue Shield Doctors Program

*Sponsored by: Medical Society of the State of North Carolina
Hospital Saving Association - Chapel Hill*

FEE SCHEDULE AMENDMENT
EFFECTIVE JANUARY 1, 1961

(Amends Form 235 DH-3/60)

<i>Page No.</i>	<i>Code</i>					
7	7100	RADIATION BENEFITS (MEDICAL CODES "B", "C", "E", "F")				
Change	thru 7286	All Diagnostic X-rays - Benefit payment increased to 80%. Blue Shield will pay 80% instead of 50% of the scheduled allowances. Service benefit members will be liable only for the remaining 20%.				
9		SURGICAL AND OBSTETRICAL SERVICE - PARAGRAPH G				
Change		A vaginal delivery shall not be considered a surgical procedure under this paragraph concerning reduced fee allowances for multiple surgical procedures.				
		<i>SURGERY BENEFITS</i>	<i>Schedule "D"</i>		<i>Schedule "H"</i>	
			Surg.	Anes.	Surg.	Anes.
11	0260	Traumatic injury - not specified elsewhere in schedule - first visit - treatment within 72 hours of accident - up to	5.00	-	5.00	-
Add						
14	0693	Malar, simple or compound, depressed, open reduction	100.00	T	150.00	T
Change						
23	1922	Excision of nasopharyngeal fibroma	60.00	T	100.00	T
Change						
23	1923	Excision of juvenile agnio fibroma	200.00	T	300.00	T
Add						
23	1935	Turbinectomy, complete or partial	10.00	-	20.00	-
Change						
12	0415	Removal of warts and other minor skin lesions by application of liquid nitrogen or other chemical agent - up to	5.00	-	5.00	-
Add						
		(\$5 per therapy session regardless of number of warts or lesions - maximum benefit of \$15 per calendar year.)				
14	0687	Compound fracture nasal bones (hospitalized)	40.00	T	60.00	T
Change						
14	0688	Simple or compound, open reduction	60.00	17.50	80.00	21.00
Change						
14	0692	Malar, compound	50.00	T	80.00	T
Change						

<i>SURGERY BENEFITS</i>			<i>Schedule "D"</i>		<i>Schedule "H"</i>	
			Surg.	Anes.	Surg.	Anes.
23	1936	Submucuous resection of				
Add		turbinate _____	25.00	-	35.00	-
23	1951	Septal reconstruction (including				
Change		correction of upper and lower lat- eral cartilage deformities) _____	125.00	T	175.00	T
23	1952	Rhinoplasty - for traumatic injury				
Add		- complete external parts (includ- ing bony pyramid, lateral carti- lages, and tip as necessary) _____	150.00	32.50	225.00	39.00
23	1953	Complete rhinoplasty and				
Add		septal reconstruction _____	I.C.	T	I.C.	T
24	1965	Cauterization of turbinates, uni- lateral or bilateral (independent procedure) _____	10.00	-	15.00	-
24	1975	Control of primary nasal hemor- rhage with anterior and post nasal pack _____	30.00	-	50.00	-
24	2031	Closure of dental fistula or				
Change		maxillary sinus with flap _____	40.00	-	60.00	-
24	2032	Closure of dental fistula with				
Add		radical anthrotomy _____	100.00	30.00	150.00	36.00
24	2074	Laryngoscopy, direct				
Change		with biopsy _____	35.00	17.50	50.00	21.00
29	2934	Excision of parotid gland with				
Change		preservation of facial nerve _____	200.00	T	300.00	T
29	2937	Excision of parotid gland with				
Change		sacrifice of facial nerve _____	150.00	T	200.00	T
34	3589	Peritoneal dialyzation,				
Add		initial _____	100.00	-	150.00	-
-	3590	subsequent _____	75.00	-	112.50	-
48	5965	Myringoplasty _____	100.00	T	150.00	T
48	5967	Stapes mobilization - indirect, or				
Change		foot plate mobilization _____	150.00	T	225.00	T
48	5968	Stapes mobilization - stapedectomy				
Add		- transposition, replacement or prosthetic technique _____	200.00	T	300.00	T
48	5975	Mastoidectomy, radical, semi-radi- cal or modified, unilateral _____	175.00	30.00	250.00	36.00
49	5976	Mastoidectomy, radical,				
Delete		bilateral _____		DELETE		
49	5977	Tympanoplasty, Type I _____	150.00	T	225.00	T
49	5978	Tympanoplasty, Types				
Change		II through V _____	200.00	T	300.00	T
49	6001	Closure of fistula				
Change		of mastoid _____	40.00	T	60.00	T

REPORT OF COMMITTEE ADVISORY TO NORTH CAROLINA STATE BOARD OF PUBLIC WELFARE

Gentlemen:

This Committee has held two meetings during the present fiscal year. The first meeting was held in Raleigh with Dr. Ellen Winston, Commissioner, and other members of the State Board of Public Welfare. At this meeting attention was given to the broad expansion program of the services of the State Board of Public Welfare and its proposed reclassification to be submitted to the Advisory Budget Commission and through them to the 1961 General Assembly. Included in this discussion were:

- a. Increased payment from \$10.00 to \$12.00 per day to hospitals for welfare recipients.
- b. Increased state funds to pay up to 15% of the cost of county welfare administration.
- c. Elimination of present restrictions on the length of time allowed for payment in nursing homes for recipients.
- d. New classification for licensing family care homes.
- e. Amendment to present day-care laws to give more adequate protection.
- f. Several other programs of the Welfare Department which have medical implication were also discussed.

The question of periodic chest xrays for welfare recipients was discussed and also payment for consultation fees to physicians and the question of uniform prices for drugs was considered. The Committee endorsed the programs as explained by Dr. Winston and made recommendations in some instances which we think will be helpful.

The second meeting of the Committee was held in Mid Pines September 30, 1960 at which time the Kerr-Mills Bill and its need for implementation in and for North Carolina was discussed. As you know the Executive Council of the State Medical Society later authorized the Committee on Chronic Illness to study and pursue with the Welfare Department the implementation of the Kerr-Mills Bill in North Carolina. As is understood and well known that committee has devoted a great deal of time and study and

leadership in the vital matter. Also at this meeting, Dr. Dewar, Physician Staff Member of the State Board of Public Welfare, met with the Committee and discussed some of the problems connected with the examination and evaluation of disability claims. The film, "The Disability Decision," was shown and discussed at length by this committee.

The Committee has held no formal meeting since October 1960 but the Chairman and other members of the Advisory Committee have met with the Committee on Chronic Illness and the Executive Council and discussed at length the implementation of the Kerr-Mills Bill. Your Advisory Committee is, therefore, fully aware of the official position of the Medical Society of the State of North Carolina on this important legislative program. It is the opinion of the Chairman that the Advisory Committee is a valuable liaison between the State Medical Society and the Department of Public Welfare and I wish to recommend that this committee be continued.

Respectfully submitted,
J. Street Brewer, M.D.
Chairman

ANNUAL REPORT OF THE COMMITTEE ON CANCER OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA

The meeting of the Cancer Committee was held at Mid Pines September 30, 1960 at 8:00 P.M. The members present were:

Dr. Charles Harris
Dr. C. G. Mock
Dr. S. L. Parker
Dr. David Pressley
Dr. H. A. Peck
Dr. H. V. Hendrick
Dr. James F. Marshall,
Chairman

In addition Dr. J. R. Kernodle, Commissioner, Dr. D. F. Milam, representing the State Board of Health, Cancer Division, and Dr. Zach Owens attended. Mrs. Donald Stone, Executive Director of the N. C. Division of the American Cancer Society was present by invitation of the Chairman.

The minutes of the last meeting September, 1959 were read and approved.

Dr. Milam gave a report on the work of the Cancer Detection and Cancer Diagnostic Centers in the State, of which there are now 18 Detection Centers and 6 Diagnostic Management Centers. In addition he pointed out that at the State Laboratory there were around 30,000 Papanicolaou smears done last year, of which 21,000 were for private physicians. This created considerable discussion as to whether the State Laboratory should do Papanicolaou smears on private patients. A Committee consisting of Doctors Harris, Chairman, Pressley and Mock was appointed to study this problem and make a report to the Committee with recommendations.

The Chairman reported that a sampling of some of the larger laboratories in the State showed a continued increase in the number of Papanicolaou smears done this year as compared to last year. The percentage increase ranged from one of 6% to 70% reported by one laboratory. Additionally, it seemed that the fee for this service has been reduced by the laboratories. One of the large ones last year reduced its fee from \$5.00 to \$3.00. However, the taking of Papanicolaou smears is far from universal and doctors should continue to be encouraged to make this test a routine one for all female patients past 20 years of age.

Mrs. Donald Stone gave an excellent resume of the activities of the N. C. Division of the American Cancer Society pointing out that the American Cancer Society emphasizes the fact that every physician's office is a cancer detection center, also that the Cancer Society is assisting financially in the training of cyto-technicians. She deplored the duplication of effort in some counties where there were local units set up in addition to the County Chapters of the American Cancer Society.

Dr. John Kernodle reported on the National Preventive Study of the American Cancer Society. He pointed out that 2% of all Americans between 45-59 are being investigated.

The Committee again urges physicians to report their cancers to the State Board of Health as required by law.

The Committee feels that the Papanicolaou

smear program is bearing fruit as indicated by the marked increase in the number of Papanicolaou smears being done this year as compared to two years ago.

Respectfully submitted,
James F. Marshall, M. D.,
Chairman
Cancer Committee,
Medical Society
State of North Carolina

REPORT OF THE CHILD HEALTH COMMITTEE 1960-61

The work of the Child Health Committee has been confined to the continuation of the Neonatal Death Study which has been carried on for several years under the combined auspices of the Child Health Committee and the Maternal Welfare Committee.

At the Pinehurst meeting of the Child Health Committee on October 1, 1960, it was felt that it would not be possible to extend the program to include all infants born in the state, as complete data are not available on those delivered at home by physicians or mid-wives. The study, therefore, is to be continued on the same basis as previously; that is, confining it to hospitals and clinics delivering more than 100 living infants annually.

At the present time the committee is in the process of compiling figures for the four years of the Neonatal Death Study. This data will be published and sent to the individual hospitals concerning their performance over this period. The Neonatal Death Study has received excellent cooperation from the participating hospitals and clinics throughout the state. It is our impression that collection of this data has at times been of aid to physicians in ascertaining the causes of neonatal deaths.

Respectfully submitted,
Angus McBryde, M.D.,
Chairman
Child Health Committee

REPORT OF COMMITTEE ON CHRONIC ILLNESS, INCLUDING TUBERCULOSIS AND HEART DISEASES

The Committee on Chronic Illness has been most active during the year 1960-61 and

has worked closely with the Officers of the State Society; the Executive Council; and with several Committees on pertinent study and activity projects as well as with State Agencies and allied health groups throughout the year.

For purposes of this annual report, the Committee has given major consideration to the following activities:

1. Hospital Discharge Study of 1959-60.
2. Governor's Conference on Aging, July, 1960.
3. White House Conference on Aging, January, 1961.
4. The formation and implementation of the Mills-Kerr Act, passed by Congress in August, 1960 and signed by the President in September, 1960.
5. Continued emphasis given to the expansion of Home Care Services for the chronically ill and aged; to increased licensed Nursing Homes; and special services for the chronically ill patients in General Hospitals.
6. Continued contact and liaison with State Agencies having responsibility and/or concern in the health needs of the chronically ill and aging.
7. Continued cooperation with the A.M.A.'s Committee on Aging and other related Divisions concerned with the above stated groups.

The Committee members have given generously of their time, thought, and effort, to the work of this Committee during the year. Programs initiated this year will be continued in 1961, especially those pertaining to state and national legislation.

1. The Hospital Discharge Study was completed in 1960. This was a cooperative *project* between the Medical Society, Hospital Association, and the State Board of Health. Copies of the brochure have been distributed to county society officers, Executive Council, selected Committees of the State Society, hospitals, county health departments, A.M.A. Council on Medical Service, and additional copies to other interested groups upon request. Copies are available from headquarters office and all requests are to be made through the State Medical Society Office, or through the

Chairman of the Committee.

The study has proved of value to many groups and has been recognized as the only study of its kind to date. Data contained has been helpful to the Committee in studying and recommending state and local legislative requests to further meetings and health and medical care needs of the chronically ill and aged citizens in North Carolina.

The Medical Society prepared the survey form and produced it in quantity. The Hospital Association mailed the survey forms to the member general hospitals and the State Board of Health tabulated the survey findings. Hospital Saving Association printed the study in final form for distribution.

2. Governor's Conference on Aging: Officials of the State Medical Society and members of the Committee on Chronic Illness were appointed by the Chairman of the Coordinating Committee on Aging to serve on study committees in preparation for the July Governor's Conference on Aging. Physicians served on seven of the eight committees, each holding a series of meetings during the first six months of the year, 1960. Committee members were also in attendance in the July Conference. The Chairman of the Committee on Chronic Illness served as Chairman of one of the sub-committees of the Health and Medical Care Committee. Dr. John Cassel, member of the Chronic Illness Committee, served as Chairman of the overall Committee on Health and Medical Care.
3. 1961 White House Conference on Aging: The Chairman of the Committee on Chronic Illness, the President of the State Medical Society, and John Cassel, Committee member, were official delegates appointed as representatives of North Carolina to the January, 1961 White House Conference on Aging. Members of the Coordinating Committee on Aging were official delegates and included were: Dr. Wingate Johnson, Bowman-Gray School of Medicine and Editor of the North Carolina Medical Journal, Dr. J. W. R. Norton, Director, N. C. State Board of Health, Dr. Eugene Hargrove, Director, N. C. State

Board of Hospital Control, and Dr. E. W. Busse, Director, Duke University Center on Gerontology. Dr. Robert Dovemeuhle, Duke University School of Medicine, served as a special staff assistant for the White House Conference.

Reports of both the Governor's Conference on Aging and the White House Conference have been made to committee members by the Chairman.

4. Study, evaluation, and plans for the formation and implementation of the Mills-Kerr Act for North Carolina: The Executive Council at its meeting on October 2, 1960 passed the following resolution: "The Executive Council of the Medical Society of the State of North Carolina meeting in Mid Pines on October 2, 1960, has surveyed through committee reports the problem of medical care of the aged citizens in North Carolina. The 86th Congress of the United States amended the Social Security Act to provide grants-in-aid to the State of North Carolina for furnishing certain medical assistance to the citizens above 65 years of age, which legislation this Society endorsed and supported.

We urge the State of North Carolina to take such steps as may be necessary to utilize the benefits of such legislation to the extent necessary to meet the needs of the aged Citizens of North Carolina. The Executive Council empowers, authorizes, and requests the Society's Committee on Chronic Illness to offer its service and to consult with and assist the State of North Carolina and its appropriate agencies in the formulation and implementation of such plans and policies as may be necessary to utilize the benefits of such Federal legislation.

For these purposes the Executive Council requests its Committee of Chronic Illness to immediately confer and cooperate with appropriate officials of the State of North Carolina for the purpose of formulating such plans and policies and for the purpose of determining how the services and facilities of this Society and its members may best be used in such a plan."

Follow-up on the above Resolution has taken priority over all other objectives of the Committee since October, 1960. Numer-

ous committee meetings, special conferences, and detailed study of the "need" in North Carolina have resulted. To assist the Committee on Chronic Illness in its delegated responsibility to the above, close liaison work between the Executive Council, Legislative Committee, Advisory Committee to the Department of Public Welfare, Officials of State Government, and with other disciplines concerned with services and facilities for health and medical care have been contacted. A new working committee "Multiple-discipline"* has been founded and valuable assistance rendered to the Committee on Chronic Illness.

A special called meeting of the Executive Council was held on November 28, 1960 at which time the Committee on Chronic Illness held a special meeting in Pinehurst. At this time, the Committee on Chronic Illness made recommendations to the Executive Council as to the implementation of the Mills-Kerr Act. The Executive Council voted in favor of the Committee's recommendations as follows:

- A. Vendor payments would be accepted for OAA and for the other category groups.
- B. Vendor payments would be accepted for the MAA program, based on the recommendations of the Chronic Illness Committee's report of \$3 office visits, \$5 home visits, and \$7.50 night home or office visits, with recognition given to extended time and travel involved. The Executive Council also requested the Committee on Blue Shield to study and recommend a fee schedule and to make recommendations at a later date.
- C. Eligibility requirements: MAA Program
 1. \$1,000 annual income per person or \$2,000 per couple.
 2. \$1,000 liquid assets per couple
 3. \$7,500 net worth per couple
- D. Priorities of services: It was recom-

*Representatives from the Medical Society, Dental Society, Hospital Association, and the County Commissioners Association.

mended that the following services be given equal importance:

1. Home and office visits
2. Dental care
3. Drugs
4. Laboratory, x-ray, and physiotherapy services, etc., to out-patients in the physician's office and/or hospital when services are not available in the physician's office.

- E. Recommendation to implement (a) institutional service and (b) non-institutional services with priority given to institutional services.
- F. Recommendation to have an Advisory Council to be appointed by the Governor. The recommendations passed by the Executive Council were in most part, in generalities with the details assigned to specific committees for further study, evaluation, and reporting at the January, 1961 Executive Council meeting.

This program was discussed at the Officers Conference and the Executive Council on Feb. 11-12, 1961 at which time the Council and the Committee on Chronic Illness reversed their recommendations, in part, from the stand taken on November 28, 1961. A special called meeting of the House of Delegates was held in Durham, N. C., on Feb. 26, 1961 and the recommendations of the Committee on Chronic Illness and that of the Executive Council following the February 12th meeting were adopted. Major changes were:

1. Physicians will not request an appropriation for vendor payments under the OAA or MAA program.
2. Requests to be made for appropriations for selected laboratory and facility services, but no professional fees to be included.
3. Request for financial assistance for dental services and for drugs. Details to be worked out by appropriate professional body.
4. Request for "reimbursable" cost for hospitalization for MAA hos-

pitalized patients. (\$20.00 per diem).

Several factors influenced the thinking of the Committee and of the Executive Council between the November 28, 1960 meeting and the February 12, 1961 meeting. These factors were explained to county societies prior to the called meeting of the House of Delegates and were thoroughly discussed before the House of Delegates on February 26, 1961.

The Chairman and other members of the Committee and officials of the State Society have attended meetings in Chicago, Washington, Atlanta, and many special meetings within the state during the year to gain additional information pertaining to this special legislative program. The Chairman has kept in contact with political leaders in Washington and within the State and has also maintained close relationships with State agency leaders in regards to this program. Committee members have assisted the Chairman upon request and all have been kept informed on Committee action and functions throughout the year.

Though final legislative action has not been determined by the General Assembly at the writing of this report, it can be reported that a State Bill, which has been prepared and approved by the multiple-discipline committee (Hospital Association, Dental Society, Pharmaceutical Association, State Board of Health, and the Medical Society) will be introduced in March, 1961. The State Bill is requesting enabling legislation to implement the Mills-Kerr Act in and for North Carolina. Estimates of numbers and costs have been determined for use in an appropriation request. Mr. John Anderson, legal advisor for the Medical Society, has been in constant contact with the Committee Chairman, the officials of the Medical Society, and with the multiplediscipline committee and has prepared such a State Bill to

be introduced. No request for professional vendor payments are being made at this time. Funds for reimbursable cost for hospitalization (\$20.00 per diem); dental service and facility charts; selected drugs, and out-patients service and facility cost are being requested in the Bill, with a strong request to have an Advisory Council appointed, representing the medical society, dental society, druggist, hospital administrators, and county commissioners. Additional information on this one assignment of the Committee is available through the Chairman or through headquarters office.

5. Continued emphasis given to Home Care Service programs and to increased number of licensed Nursing Homes: This is a continuing objective of the Committee and the Executive Council has given its full endorsement to such demonstration programs within the state. Positive results can be identified in both the Person County and the Alamance County demonstration programs. It is the desire of the Committee to support these programs and evaluate progress for further programs.

The North Carolina Medical Care Commission has licensed 40 Nursing Homes as of January 1, 1961. This is an increase over the past year and over the past three years, the number of licensed Nursing Homes has increased from 8 to 40. A Bill has been introduced in the 1961 General Assembly authorizing the State Board of Health as the *single* licensing agency for Nursing Homes and the State Board of Public Welfare to be the official licensing agency for Boarding and Rest Homes. Such action had been recommended by the Committee on Health and Medical Care at the Governor's Conference on Aging in July, 1960.

Another Bill has been introduced in the General Assembly requesting a transfer of some State Funds from the Medical Care Commission (which has been granted as financial assistance for hospitalization for medically indigent patients) to the State Board of Public Welfare so that Federal

matching funds could be used for hospitalization of welfare recipients.

Additional information can be obtained either from the Medical Care Commission or the State Board of Public Welfare.

6. Liaison Contact with State Agencies: As reported under item 4 in this report, contact with State Agencies having responsibility for the health and medical care needs of the Chronically Ill and Aged has been maintained and increased with the pending legislative action needed for the implementation of the Mills-Kerr Act in and for North Carolina.

7. Continued cooperation with the A.M.A.'s Committee on Aging: Communication with the A.M.A. official and its Committee on Aging and other related divisions has been maintained and increased during the year 1960-61. The Chairman and other members of the Committee have attended meetings in Chicago, Washington, Atlanta, and upon invitation, representatives of the A.M.A. have visited the state to meet with groups of physicians to discuss the Mills-Kerr Act and other pending legislation having medical implications. Dr. E. B. Howard, Assistant Executive Vice-President, A.M.A. attended a special meeting of the Mecklenburg County Medical Society on February 8, 1961; Mr. James Foristel A.M.A., Washington Office, addressed the Officers Conference in Pinehurst on February 11, 1961 and the Executive Council on February 12, 1961. Mr. Richard Nelson, Field Representative, has visited the state several times during the year, meeting with the Committee, the Executive Council and attending the Feb. 26th meeting of the House of Delegates. These and other officials of the A.M.A. have been most helpful to leaders in the State Medical Society and Committee representatives in gleaning information on the above pending legislation and its implementation in North Carolina.

8. Other Committee Activities:

1. It was recommended and voted at the February 11, 1961 meeting of the Committee on Chronic Illness to re-survey the physicians in the state as to their present practice load of (a) Chronically ill patients, (b) aged, and

(c) medically indigent, those 65 and over who would be assisted by the Mills-Kerr Act when implemented in the state. The same committee co-chairmen were re-appointed to work on this assignment — Drs. Verdone and Nichols.

2. Following the recommendation last year to hold area meetings with county society officials and chronic illness committee chairmen, Dr. T. R. Nichols in Morganton, N. C., reported holding two meetings during the year for the purposes of (1) interpreting the functions of the Committee on Chronic Illness, and (2) to discuss the Mills-Kerr Act and its implementation in North Carolina. Dr. George Verdone of Charlotte, N. C., reported holding one meeting in his area on January 19, 1961 and he was one of the county society leaders responsible for the special meeting of the entire society in Mecklenburg County on Feb. 8, 1961 at which time Dr. E. B. Howard of A.M.A. was principal speaker. Dr. Stephen Bartlett, Jr., of Greenville held an area meeting of committee chairmen and society officers in February, 1961 and Dr. John L. Shirey of Asheville working with Dr. T. R. Nichols of Morganton, held a western area meeting of committee chairmen and society officers in Asheville on March 23, 1961.
3. Prior to the called meeting of the House of Delegates in Durham, Feb. 26, 1961, county societies were requested to hold special meetings to discuss the Mills-Kerr Act and its implementation in North Carolina and the role of the practicing physician in such a program. Committee members served on a "Speakers' Bureau" to meet with county societies and discuss the recommendations of the Committee which would be presented at the House of Delegates for action. The Chairman of the Committee along with the Chairman of the Legislative Committee, the President and other officials of the state society

attended county meetings upon request during January and February.

Special meetings attended and participation by the Chairman and other Committee members:

It would be impossible to list the many meetings of committees, agencies, multiple-discipline group, county society meetings, etc., attended within the state during the year. Out of state meetings to which the Chairman and other committee members have been invited, are listed below, including the Governor's Conference on Aging;

1. Regional Conference on Aging in Atlanta, Georgia - March 1960 - sponsored by the A.M.A. Committee on Aging. The Chairman and committee members, program participants, and several other members attended this meeting.
2. A.M.A. meeting in Chicago in April, 1960 in preparation for the 1961 White House Conference on Aging: The Chairman led one of the discussion groups at this meeting. The State Society president and the Chairman of the Legislative Committee were also conference participants.
3. Active participation in the N. C. Governor's Conference on Aging, July 1960. The Chairman and members of the Committee served on several of the study committees in preparation for the July, Governor's Conference and also attended and participated in the 3-day meeting in Raleigh. One member of the committee, served as Chairman of the Health and Medical Care Committee. Medical representatives served on seven of the eight study committees for the State Conference on Aging.
4. 1961 White House Conference on Aging, Washington, D. C.: The Chairman of the Committee and one committee member Dr. John Cassel, and the President of the State Medical Society were three of the Governor's appointees to the White House Conference as delegates from North Carolina. Four physicians serve on the Governor's Coordinating Commit-

tee on Aging and attended the White House Conference. Representatives included: Dr. Amos N. Johnson, President, Dr. John R. Kernodle, Committee Chairman, Dr. John Cassel, committee member, and representing the Governor's Coordinating Committee, Drs. Wingate Johnson, J. W. Roy Norton, E. W. Busse, Eugene Hargrove, and special assistant to the conference Dr. Robert Dovenmuehle of Duke University Medical School.

5. A.M.A. Special Legislative meeting on Implementation of Mills-Kerr Bill in Chicago, March 17-19, 1961. Chairman of the Committee was one of the N. C. representatives.
6. Committee members attended the National Health Council Forum on Aging in Miami, March 1960 and the Committee Chairman attended the 1961 National Health Council Forum in New York, March 13-16, 1961.
7. The Committee Chairman was one of 10 appointed this year as consultant to A.M.A.'s Committee on Aging.

Continued projects for 1961-62:

1. Work towards the implementation of the Mills-Kerr Act in and for North Carolina by action of the 1961 General Assembly.
2. Continued opposition to any Forand or Social Security financed medical care legislation at national level.
3. Continue area meetings of Committee Chairmen in the interest of the Committee on Chronic Illness program of work.
4. Re-survey of physicians to needs for health care assistance for chronically ill and/or aged.
5. Support of Home Care demonstration programs; improved hospital nursing, and convalescent care for the chronically ill and/or aged.
6. Continued close working relationship with Multiple-Discipline Committee, State agencies, and the A. M. A. in matters pertaining to the health care needs of the chronically ill and/or aged.

7. Maintain close liaison with officials of the society, committee chairmen having an interest in these stated problem areas, and with the county society chairmen and officers.

Respectfully submitted:

JOHN R. KERNODLE, M. D.,
Chairman

Committee on Chronic Illness

COMMITTEE MEMBERS:

John R. Kernodle, M. D., *Chairman*
 Stephen R. Bartlett, Jr., M.D.
 Robert H. Dovenmuehle, M.D.
 R. C. Proctor, M.D.
 Thomas D. Long, M.D.
 O. David Garvin, M.D.
 Robert A. Gregg, M.D.
 Emery T. Kraycirik, M.D.
 Daniel A. McLaurin, M.D.
 Thomas R. Nichols, M.D.
 Elbert L. Persons, M.D.
 John L. Shirey, M.D.
 George L. Verdone, M.D.
 Donald D. Weir, M.D.
 Wm. H. Flythe, M.D.

REPORT OF THE COMMITTEE ON MEDICAL CREDIT BUREAUS

The State Medical Society's Committee on Medical Credit Bureaus met at Room 10 in the Golfotel at Mid Pines, N. C., at 1:00 P.M. on Saturday, October 1, 1960. The committee's history, scope and purposes were reviewed. The exhibit of the committee which had been displayed at meetings of the North Carolina Medical Society and the A. M. A. was discussed, along with a discussion of the article about the report on credit bureaus which appeared in the North Carolina Medical Journal. By unanimous motion, the Committee requested that the Executive Office, through Mr. Barnes or Mr. Hilliard, notify all new physicians in North Carolina of the existence of the Committee and the Committee's recommendations concerning use of Medical Credit Bureaus.

Respectfully submitted,

W. Howard Wilson, M. D.
Chairman,

Committee on Credit Bureaus

ANNUAL REPORT OF THE COMMITTEE ON CREDENTIALS OF DELEGATES

The Committee on Credentials of Delegates to the House of Delegates met at the annual meeting of the Medical Society of the State of North Carolina in the Reynolds Coliseum at Raleigh, North Carolina, on May 2, 1960, and checked the credentials of all delegates from the component county societies present. The roll call was tabulated and the presence of a quorum confirmed.

There being no business to be taken up by the committee a fall meeting was not held.

T. Tilghman Herring, M. D.,
Chairman
Committee on Credentials of
Delegates to House of Delegates

COMMITTEE ON EMERGENCY MEDICAL AND MILITARY SERVICE

- A. This committee formally met on September 30, 1960, at Mid Pines, North Carolina. The meeting was also attended by the Executive Secretary, Mr. James T. Barnes.
- B. The Committee received a report from the Society's representative, Dr. James Davis, Durham, North Carolina, regarding his attendance at a course for the Management of Mass Casualties conducted by the Army at Walter Reed Hospital in Washington, D. C. The meeting was attended by a second member of our Society at his own expense. The experience of both seemed to be entirely worthwhile and it was felt that the Committee should recommend that the practice of sending others of our membership to the course on the Management on Mass Casualties should be continued. Consequently, it was recommended to the Executive Council that \$600.00 should be set aside in the budget for this purpose. Any one of the membership interested in attending this course is urged to communicate with the Chairman of this Committee.
- C. The Committee reviewed the activities of the efforts on the part of our Society toward preparedness for Disaster Medical Service and concluded that there

was generally a lack of enthusiasm and interest, and certain counties of the state seemed to be well prepared from an organizational standpoint, but only from "dry runs" could adequate experience be obtained. The members of this Committee participated in two "Alerts" which were a part of the operations of the National and State Civil Defense programs, our efforts and participation received the commendation of the State Director of Civil Defense. The entire problem of Disaster Medical Service continues under the consideration of the Committee.

- D. The Chairman of this Committee, along with the Executive Director, and upon the suggestion of the President, attended the Eleventh County Medical Society's Conference sponsored by the American Medical Association held in Chicago on November 4 to 6, 1960.
- E. These same two representatives of your Society attended a regional conference on the Committee of Emergency Medical Care held in New Orleans on February 18, 1961. At that meeting, representatives from each state within the Southeast reported on their activities and problems. The North Carolina Committee was one of the few which had established firm liaison between its Civil Defense program and the Department of the Army. It is the feeling of this Committee that our preparedness in North Carolina is equal to, if not superior to that of most of our sister states.
- F. Your Committee has cooperated with the office of the State Director of Civil Defense and in turn, has received encouragement and many forms of help in furthering our program. It is strongly urged by this Committee that all of our membership take the problem of preparedness for Disaster Medical Service more seriously. If this is done, and adequate preparations are made, certainly, the survival rate of our people will be greatly increased. This itself would be a deterrent to any aggressor, and at the same time, would make us

ready to care for survivors as a result of a natural catastrophe. Further development of this program at all levels is strongly urged.

Respectfully submitted,
George W. Paschal, Jr., M.D.
Chairman

REPORT OF SCIENTIFIC EXHIBITS COMMITTEE

Report of Scientific Exhibits Committee of the Medical Society of the State of North Carolina.

This Committee met for the fall conclave and in January 1961 accepted 22 Scientific and 6 Associated Medical Agency Exhibits for the 1961 Annual Session to be held in Asheville. Of the Scientific Exhibits, 14 are of North Carolina origin.

Recommendation is made that a meeting of this Committee be held preferably in June or July of each year to make plans for obtaining better exhibits yearly so that all members of the Committee can cooperate.

Ralph W. Coonrad, M. D.,
Chairman

Lenox D. Baker, M. D.
William H. Boyce, M. D.
Thomas B. Daniel, M. D.
Erle Peacock, M. D.
O. Norris Smith, M. D.
Vernon H. Youngblood, M. D.

REPORT OF THE COMMITTEE ON EYE CARE AND EYE BANK

It has been a busy year. Principally, the business of M.A.A. implementation. The Eye Care Committee met at Greensboro in September at the time of the annual North Carolina E.E.N.&T. meeting. On December 6th, 1960, a called meeting was held with Dr. Ellen Winston at the Department of Public Welfare office. Mr. H. A. Wood and Mr. Jim Barnes were also present for this meeting.

As a result of the above conference the Eye Care Committee cooperated with the North Carolina E.E.N. & T. Society Officers and the Committee on Government Fees in holding a called business meeting in Greensboro in mid-January. This meeting informed 47 of the North Carolina's E.E.N. & T. doc-

tors what could be expected of M.A.A. implementation in this state.

At the request of council and President Amos Johnson the chairman of the eye care committee appeared before the council meeting in Pinehurst on February 12th to outline some of the problems of the eye physicians in working with indigent and semi-indigent wards of the state and federal government.

It is anticipated that additional meetings will be necessary next year.

Respectfully submitted,
George T. Noel, M. D.

REPORT OF THE FINANCE COMMITTEE

The members of the Finance Committee are pleased to report that the fiscal affairs of the Medical Society of the State of North Carolina, percentage wise, are way yonder better than those of the "New Frontier". For instance; the audit of operations of old age and survivors insurance trust fund (Social Security) shows a deficit of \$712 million dollars for the fiscal year of 1960. While our audit showed a profit of \$25,246.96.

In studying the auditor's report, note how closely our income estimates and allotted expenditures in the budget compare with the actual income and expenditures. Note how the \$140,000 estimate from dues compares with the actual dues collected. This, despite the fact that in September 1959 we were expecting dues from 500 or more "life members" and remember that in this interim nearly all the life members have been excused and the \$5,250.00 actually paid in has been refunded.

As to 1961 we can expect less income from advertisement due to the Kefauver investigation of the drug companies. We hope this will be partially offset by savings anticipated by moving the printing of the Journal from Winston-Salem to Raleigh.

We feel that our investments in open-end Mutual Funds has done well in that in spite of a rather marked decrease in Dow-Jones averages in 1960, our investments showed an (interim calculated) increase of \$4,549.98.

We also own 53 acres of land between Raleigh and Durham. I'll quote Jim Barnes, the most conservative member of the Executive Council, "I have recently written you

about the tract of land in which some of our reserves are invested and every indication is that it has been a very wise investment and probably one in which we should guard our equity and probably retain full possession rather than sell off part." On the tax book, it's value has increased 1000%.

Headquarters office space has been expanded and revised and is a very acceptable place to carry on the business of the Society for the foreseeable future. The rent we pay is far less than other associations with comparable floor space.

Once again our Executive Director and his staff are to be commended for excellence in management of the business affairs of the Society. I hope that the House of Delegates will let them know that we do appreciate their efforts.

Respectfully submitted,
Wayne J. Benton, M. D.
Chairman, Finance Committee

REPORT OF GRIEVANCE COMMITTEE

The Grievance Committee has received and studied several complaints which have been settled satisfactorily. Two new complaints are pending, and will be considered at the Asheville Meeting. Considering everything, we have a very satisfactory and peaceful year with nothing unusual to report.

With very best wishes, I am

Sincerely yours,
J. P. Rousseau, M. D.
Chairman Grievance Committee
Medical Society State of North
Carolina

REPORT OF GOLF COMMITTEE

It is planned to hold the annual Medical Society Golf Tournament at the Country Club of Asheville on May 8th and 9th. An agreement authorizing this tournament was drawn up with the Club Manager, Michael L. Taft, on September 27, 1960.

I think it would be best to conduct the tournament as it has been in the past, that is a low gross and low net affair using the Calloway system of handicapping. Eighteen holes to be played on either the 8th or 9th. Each player must register at the pro shop and turn in a signed score card at the end

of play. Prizes should be awarded for low gross and low net scores. The player winning the low gross should receive the rotating golf trophy. Arrangements will be made with the professional at the Country Club to post all scores and render a report at the end of the tournament.

I should think that an expenditure of about \$200.00 should be made for the expense of conducting the tournament. This money should be used to buy prizes from the local Golf Professional and also to pay him a fee of \$20.00 a day for managing the tournament.

Sincerely yours,
W. A. Brewton, M. D., Chairman
Committee on Medical Golf
Tournament

ANNUAL COMMITTEE REPORT OF THE HOSPITAL AND PROFESSIONAL RELATIONS COMMITTEE WITH THE N. C. HOSPITAL ASSOCIATION

The Committee on Hospital and Professional Relations met at the Mid Pines Hotel on September 30, 1960 at 10 A. M. A quorum was not present and only routine matters were discussed. No specific problems of major importance had been brought to the attention of the Committee at that time.

During the year 1960-61 no major problems have been encountered and this Committee has been relatively inactive.

Theo H. Mees., M. D., Chairman

ANNUAL REPORT OF THE COMMITTEE OF THE N. C. STATE MEDICAL SOCIETY TO WORK WITH THE INDUSTRIAL COMMISSION

This Committee has continued its work as in the past years. Our relationship with the Industrial Commission has continued to be pleasant and mutually beneficial to the Commission and to the Medical Society. During the past few years, there has been a diminution of the cases presented to this Committee for arbitration in which the physician felt that his charges were cut unjustifiably. The few cases which physicians have presented have been considered by us and the Commission. Our recommendation to the

Commission is not always accepted in its entirety.

The problem of additional x-rays, other than routine views, has been discussed with the Commission. They have had under advisement for over six months a recommendation from this Committee that additional charges be made for each additional view necessary other than the routine views. It has been suggested and accepted in principle that additional fees be allowed on the basis of the cost of the film and the cost of processing film.

The Commission has continued to be most cooperative in not requiring physicians to testify out of their home county. Physicians may travel to other counties if they wish to testify for industrial cases. The Commissioners have a policy of not requiring physicians to travel out of their county if they do not wish to, however, for Industrial Commission hearings. They have also made a concerted effort to not have physicians called to hearings until the Commission is ready to have them testify. They have been most helpful in this regard with the resultant saving of a great deal of our time. We have expressed to them our appreciation in this regard.

The Committee intends to work with the Legislative Committee in having two portions of the General Statutes of the State of North Carolina pertaining to the Industrial Commission revised. Both of these are in regard to disability evaluation. We have discussed with the Commission the many problems which arise in regard to physicians in general and specific instances. We feel that we have been a great deal of help in having these worked out fairly and harmoniously. We propose to continue the functions of this Committee on the lines they have been in the past several years.

Respectively submitted,
 William F. Hollister, M. D.
 James S. Mitchener, Jr., M. D.
 Guy L. Odom, M. D.
 Malory A. Pittman, M. D.
 Charles T. Wilkinson, M. D.
 Thomas B. Dameron, Jr., M. D.,
 Chairman

REPORT OF COMMITTEE ON INSURANCES 1960-61

The Committee on Insurances for the State Medical Society met with the other committees in Pinehurst in September, 1960. The programs which the Medical Society of the State of North Carolina endorses were all reviewed and it was felt the program should be continued in force. Some discussion was made of the Professional Liability Program and it was decided a re-evaluate this program sometime in the Spring, as to the possibility of affecting rate reductions, depending upon the experience during the preceding 18 months. It was pointed out that at the present time any claims arising were referred to the Claims Manager of the St. Paul Company and these claims investigated by the panel of specialists working with Mr. Thompson of the St. Paul Company, in the area involved. This plan has worked very well in the past, and it was the Committee's feeling that this procedure be followed in the future.

A proposal was submitted to the Insurance Committee by an agency in Morganton regarding the feasibility of the Medical Society of the State of North Carolina endorsing a group life insurance program. This problem has been reviewed in the past, and the feeling of the committee is still the same. This feeling is that it is not practical for the Medical Society of the State of North Carolina to engage in group life insurance programs for two main reasons. These reasons are: the insurance laws of North Carolina make such a program particularly hard to qualify for, and secondly, the difficulty of administering such a program on the State level through the offices of the State Society. Such a program is practical at the County level, and it was the feeling of the Committee that this is where this type of insurance should be put into effect, if the component societies so desire it.

Those attending the committee meeting were Dr. George Paschall, Mr. James T. Barnes and Dr. J. W. Hooper, Jr., Chairman.

Submitted,
 Jos. W. Hooper, Jr., M. D.
 Chairman

REPORT OF THE COMMITTEE ON LEGISLATION

Inasmuch as the State Legislature was not in session during 1960, the efforts of the Legislative Committee during that calendar year were concentrated on National legislation. An intensive effort was made through the state society headquarters staff, the AMA field representatives, the legislative key men, and the Legislative Committee to organize the efforts of the entire Society membership in making strong expression against the passage of the Forand Bill in congress during the latter months of 1960. It is a matter of record that this legislation was successfully defeated. A novel means of communication was employed in this effort consisting of a series of telephone conferences between the parties listed above and officers of the county medical societies. These proved to be effective in providing a stimulus for county society and individual activity on the national legislative scene. An additional effort was made at the national level in the fall of 1960 when the Kerr-Mills legislation was being considered in congress. Our medical society along with the AMA took a positive stand in support of this legislation and it is also a matter of record that this legislation was enacted into law.

Representatives from the Legislative Committee and from the headquarters staff attended two AMA conferences on national legislation: One held in Hershey, Pennsylvania, and the other held in Chicago.

With the convening of the 1961 session of the General Assembly in Raleigh there have been a large number of bills introduced affecting medicine either directly or indirectly. As this report is being written, most of these matters are still before the legislative committees for consideration and very few have been acted upon. A daily scrutiny of legislative activity is constantly being carried out by the Executive Director, our attorney, and by the chairmen of the Legislative Committee. The most important effort of this legislative year would probably be directed toward the sponsorship of state legislation designed to implement the medical assistance for the aged (MAA) program in North Carolina. At this writing, the bill has just

been introduced under the joint sponsorship of the Medical Society, the Pharmaceutical Association, and the Hospital Association. A considerable amount of support for this legislation was mustered prior to its introduction, although its ultimate fate is yet uncertain. Other matters that will probably come up during the present legislative session are as follows: A possible reopening of the medical practice act to more clearly define the practice of pathology, a proposed change in the statutes affecting the definition and practice of podiatry, possible changes in Workmen's Compensation laws, possible changes in the licensing of small lying in facilities, possible changes in the sales tax structure to include medical supplies and drugs in the taxable items, changes in the nurse registration act, and many others.

It is the hope of the Committee that when the legislature finally adjourns that the MAA legislation will have become state law and that we will have been successful in our efforts to put out the many small fires that are constantly cropping up and which are considered by the Committee to be detrimental to the public interest and to the preservation of the practice of medicine in North Carolina.

Edgar T. Beddingfield, Jr., M. D.
Co-Chairman
Committee on Legislation

ANNUAL REPORT OF THE COMMITTEE ON MATERNAL HEALTH MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA

In the past ten years there has been a gradual rise in the total number of livebirths occurring annually in North Carolina, reaching a peak of 116,000 in 1956 with a distinct drop in the total number since that year. Table 1. In spite of an increase in population, the decreasing birth rates have been responsible for this reduction in the total number of livebirths. Birth rates, which were at their lowest point during the years of depression, rose during and following the war, are now dropping to near depression rates.

Examination of the maternal, fetal, neonatal, and postneonatal mortality rates is of

significance. Table II. Maternal mortality rate has continued to drop, although the provisional rate for 1960 shows a rather abrupt rise. Fetal and neonatal mortality rates appear to be showing evidence of a slight drop after a long period of no significant reduction. In the United States there has been a tendency for the neonatal mortality rate as well as the postneonatal mortality rate to show some elevation. The significance of this has not been clearly explained. It has been suggested that these rates could be explained on an increase in the number of deaths due to staphylococcal infections and in the number of deaths due to respiratory infections. Examination of these deaths by cause of death in North Carolina has not yielded any information regarding the possible stabilization of these rates in North Carolina.

The distribution of resident livebirths by place of birth and attendant, as seen in table III, indicates a continued rise in the number of deliveries or livebirths occurring in the hospital with perceptible and continued reductions in the number of births in the home attended either by a physician or by a midwife. In 1950 there were 915 registered licensed midwives who did a total of 13,974 deliveries. In 1959, however, the number of licensed midwives registered was 322 who did approximately 7,000 deliveries. Although the number of midwives was reduced by two-thirds, the number of deliveries which the remaining midwives attended was reduced by one-half.

Primary cause of death for 1960 and the previous four years is listed in table IV. One encouraging note is the continued fall in the number of deaths due to toxemia of pregnancy. However, the number of deaths due to obstetric hemorrhage has continued to remain at a fairly constant level for the past four years. There was a striking increase in the number of deaths due to pulmonary embolism and in the past two years the number of deaths due to infection have been higher than in the years 1957-58. This will bear watching, particularly in view of the increasing frequency of hospital staphylococcal infections. Tables VI and VII indi-

cate the number of maternal deaths according to race by actual number and percentage. Approximately two-thirds of the maternal deaths occur among the nonwhite, who account for only one-quarter of the total livebirths.

During 1960 the Committee held two meetings, the first being July 31, 1960, in Asheville, North Carolina. At this meeting the annual report for the previous year was presented. Following this, there was a discussion of the problem of "population explosion." The problem of adequate physician personnel to handle the anticipated increase in the number of deliveries was discussed at length. This was felt to be a problem for the future. How acute the problem would be was not decided. Of more medium importance was the problem of adequate coverage by the various ancillary services for patients already being delivered in the hospital. A number of physicians from Asheville were attending the meeting as guests had commented that their patients were receiving second rate nursing, anesthesia, nursery and laboratory service. The hospital administration apparently holds the philosophy that the obstetric patients need somewhat less adequate care than do other patients in the hospital. Accordingly, a committee to investigate this matter was appointed. The chairman of the committee was Dr. Leonard Roach, of Asheville. Other members of the Committee included Dr. William Wellborn, of Morganton, Dr. Joseph May, of Winston-Salem, and Dr. Ray Silverthorne, of Washington. Several cases of maternal mortality were presented following this for discussion. The second meeting was held October 1, 1960, at Mid Pines. At this meeting plans were developed to send out a questionnaire to investigate the quality of ancillary services provided obstetric patients in selective hospitals in North Carolina. These questionnaires will be sent out, the materials summarized and prepared for a meeting in September, 1961.

The financial report for the year 1960 is as follows:

RECEIPTS

Overdraft 12-31-59	\$ 95.64
Check - Medical Society of North Carolina	2,800.00

\$2,704.36

Overdraft 6.61

\$2,710.97

DISBURSEMENTS

Salary: Secretary	\$2,400.00
Social Security Tax	72.00
Reprints	38.75
Postage	44.00
Telephone	4.00
Stationery	29.40
Office Supplies	27.50
Miscellaneous	33.59
Travel Expense:	
Dr. Donnelly	46.73
Overhead	50.00
Maintenancy on typewriter	(35.00)

Total Expenses \$2,710.97

2,710.97

\$2,710.97

TABLE I

RESIDENT LIVEBIRTHS AND BIRTH RATE
North Carolina 1950-1960

Year	Total Livebirths	Birth Rate
1950	106,486	26.2
1951	110,910	26.9
1952	111,272	26.7
1953	111,856	26.5
1954	114,846	26.9
1955	115,365	26.7
1956	116,274	26.5
1957	113,440	25.6
1958	110,492	24.7
1959	110,769	24.5
1960	110,063*	24.2

* Provisional

TABLE II

MATERNAL, FETAL, NEONATAL AND
POSTNEONATAL MORTALITY RATES
North Carolina 1950 - 1960

Year	Maternal	Fetal	Neonatal	Postneonatal
1950	11.8	24.1	21.4	13.1
1951	11.1	23.4	20.6	12.1
1952	10.2	22.4	22.0	13.6
1953	9.7	19.9	20.3	12.4
1954	7.1	20.5	19.4	10.8
1955	8.3	20.5	19.5	10.8
1956	7.0	19.1	20.4	10.5
1957	7.4	18.5	19.9	10.6
1958	5.7	19.8	21.1	11.5
1959	5.0	19.3	21.4	11.4
1960*	5.9	18.9	20.5	11.5

* Provisional

Maternal mortality rate based on 10,000 livebirths
Fetal, neonatal and postneonatal rates based on
1,000 livebirths

Perinatal mortality may be obtained by adding
fetal and neonatal mortality rates.

Infant mortality may be obtained by adding
neonatal and postneonatal rates.

TABLE III

PERCENTAGE RESIDENT LIVEBIRTHS BY
PLACE OF BIRTH AND ATTENDANT
North Carolina 1950-1960

Year	Hospital	Physican-Home	Midwife
1950	70.0	17.0	13.0
1951	75.0	13.0	12.0
1952	78.6	10.4	11.0
1953	81.0	8.6	10.4
1954	83.0	7.0	10.0
1955	85.0	6.0	9.0
1956	86.5	5.1	8.1
1957	88.0	4.3	7.7
1958	88.5	4.4	7.1
1959	90.0	3.8	6.2
1960	N.A.	N.A.	N.A.

TABLE IV

PRIMARY CAUSE OF MATERNAL MORTALITY
North Carolina 1956-1960

	1956	1957	1958	1959	1960	Total
Toxemia	36	30	33	19	17	135
Hemorrhage	38	21	26	29	26	140
Embolism	8	4	3	8	13	36
Infection	12	4	6	8	9	39
Cardiac	4	1	2	6	4	17
Anesthesia	5	3	3	2	1	14
Other obstetrics	19	27	20	20	21	107
Nonobstetric	30	17	21	33	24	125
Incomplete	7	31	16	3	0	57
Total	159	138	130	128	115	670

TABLE V

PRIMARY CAUSE OF MATERNAL MORTALITY
North Carolina 1946-1959

	1946-1949		1950-1954		1955-1959	
	#	%	#	%	#	%
Toxemia	213	27.1	270	28.5	163	22.4
Hemorrhage	200	25.4	215	22.7	166	22.8
Embolism	62	7.9	81	8.5	39	5.3
Infection	60	7.6	55	5.8	39	5.3
Cardiac	34	4.2	29	3.1	18	2.5
Anesthesia	22	2.8	25	2.6	15	2.1
Other						
Obstetrics	72	9.2	89	9.4	103	14.1
Nonobstetric	89	11.3	147	15.5	126	17.3
Incomplete	35	4.5	35	3.7	60	8.2
Total	787	99.9	946	100.0	729	100.0

TABLE VI

MATERNAL DEATHS BY RACE

North Carolina - 1956-1960

	1956	1957	1958	1959	1960	Total
White	51	48	37	49	43	228
Nonwhite	108	90	93	79	72	442
Total	159	138	130	128	115	670

TABLE VII

MATERNAL DEATHS BY RACE

North Carolina - 1946-1959

	1946-1949		1950-1954		1955-1959	
	#	%	#	%	#	%
White	346	43.9	357	37.7	241	34.0
Nonwhite	441	56.0	589	62.3	488	66.0
Total	787	99.9	946	100.0	729	100.0

Respectfully submitted,
James F. Donnelly, M. D.,

Chairman

Glenn E. Best, M. D.

Jesse Caldwell, Jr., M. D.

Milton S. Clark, M. D.

W. Otis Duck, M. D.

H. Fleming Fuller, M. D.

Wm. A. Hoggard, Jr., M. D.

Frank R. Lock, M. D.

Hugh A. McAllister, M. D.

P. J. McElrath, M. D.

Roy T. Parker, M. D.

Robert A. Ross, M. D.

Wm. R. Wellborn, Jr., M. D.

W. Joseph May, M. D.,

Secretary

REPORT OF MEDICAL-LEGAL COMMITTEE

MEDICAL SOCIETY OF THE

STATE OF NORTH CAROLINA

March 18, 1961

I. *Review of work done to date:*

There have been two meetings of the Medical-Legal Committee during the past year. A joint meeting was held with the medical-legal committee of the N. C. Bar Association in Raleigh, N. C., on May 14, 1960, five members of the medical group and three members of the law group being present. A second meeting was held in Southern Pines, N. C., on October 1, 1960, this meeting being attended by five members.

Among the matters discussed were methods of maintaining a high level of interest in the joint meetings of the

county medical societies and the county bar associations; publication of a small pamphlet of abstracts of the North Carolina statutes that pertain to the medical profession; and the reprinting of the Interprofessional Code of North Carolina.

Joint meetings were held in some 20 counties during the past year and several such meetings have been scheduled for the ensuing months.

A joint meeting of my committee with the committee from the N. C. Bar Association is scheduled for April 1961.

II. *Unethical actions:*

No incidents of alleged unethical conduct on the part of physicians have been reported to the committee.

III. *New fields:*

It was felt by both committees at the joint meeting that the publication of a small pamphlet abstracting the statutes of North Carolina that pertain to the medical profession in rather brief form would be very beneficial. In order to stimulate interest in joint meetings at the county level, it was suggested that full-time members of the legal staff, American Medical Association, or similar speakers from the American Bar Association, be asked to appear on the program.

IV. *Recommendations for the future:*

- A. Promotion of further joint meetings.
 - B. Reprint of Interprofessional Code.
 - C. Publication of a small pamphlet abstracting the statutes of North Carolina that pertain to the medical profession.
 - D. Study of a project: Outlining and publishing of standards of practice for doctors and lawyers.
- Julius A. Howell, M.D.,
Chairman
Theodore S. Raiford, M.D.
Millard B. Bethel, M.D.
June U. Gunter, M.D.
Connell G. Garrenton, M.D.
John W. Foster, M.D.
Bennette B. Pool, M.D.

**COMMITTEE ON MEDICAL CARE
ARMED FORCES DEPENDENTS -
("Medicare")**

The Medicare Program operated on a generally satisfactory and stable basis throughout 1960. The January 1, 1960 restoration of benefits again made it possible to provide plannable operations for dependents in civilian facilities. This eliminated a severe hardship that had been imposed on military families not living near a military hospital, particularly in connection with tonsillectomies and correction of birth defects.

The report from our fiscal administrator, Hospital Saving Association of Chapel Hill, is attached. This shows why the volume of cases did not increase as much in 1960 as had been anticipated. This report shows also that the impressive sum of over seven and one-half million dollars has been paid in North Carolina over the past four years in behalf of service families. This has been accomplished under a reasonable schedule of allowances and has preserved free choice of physician and hospital for a sizable segment of our population. It is difficult to see how this would have been accomplished otherwise without an increase in the welfare case load or an expansion of federal medical installations.

One new government regulation was imposed during 1960. This was a requirement that claims be submitted after completion of outpatient post-operative and post-partum care rather than immediately after hospital discharge. This resulted in some delay in claims handling, forms being returned for later re-submission, with resultant irritation on the part of some doctors. This was not a ruling or the Office for Dependents' Medical Care of our fiscal administrator, but was a condition imposed by the General Accounting Office. Since the negotiated fees include complete care, it has not been possible to remove this requirement. Physicians now seem to understand and accept this ruling which was more of a disruptive episode and irritant than a real setback to the Program.

Your Committee, accompanied by Mr. Barnes and Mr. Beeston, conducted face to face negotiations with the ODMC staff in

Washington in April and again in November, 1960. As a result, several changes in the schedule of allowances were agreed upon and put into effect by contract amendment. The changes in all cases were as recommended by the Committee to remove inequities and clarify nomenclature.

The Committee has had regular meetings and requested attendance of Subcommittee members as necessary.

Colonel William D. Graham, Professional Director, ODMC Office, attended the full Committee meeting held in Mid Pines in September, 1960 and participated in the Committee discussion.

General Floyd L. Wergeland, head of the Office for Dependents' Medical Care, and his staff have been efficient and cooperative. General Wergeland visited the Chairman, Mr. Barnes office, and Hospital Saving Association office in December, 1960, and expressed complete satisfaction with civilian care being provided dependents in North Carolina and with the effectiveness of the Program's administration in the state.

It is doubtful that unlimited free choice between civilian and military care will be restored for dependents living in the vicinity of military hospitals. However, the issuance of Permits has seemed to be equitable and the system permits military hospitals to provide a stable level of care in accordance with beds and staff capability.

Mr. E. B. Crawford, Mr. K. G. Beeston, Mr. John W. Ruff and the staff of Hospital Saving Association have continued to give excellent administration and cooperation. The counsel and the aid of Mr. James T. Barnes and his staff at the Headquarters Office of the Medical Society have been invaluable.

The Committee recommends to the House of Delegates that the Society continue to contract with the government in the operation of the Medicare program with specific directions to the Executive Council to continue, revise or discontinue the program as they see fit according to future developments.

Respectfully submitted,
David M. Cogdell, M. D.
Chairman

MEDICARE REPORT

*To the Medicare Committee of the
Medical Society of the State of
North Carolina*

Period - January 1, 1960 through December 31, 1960

The Association has completed its fourth year as fiscal agent for the State Medical Society under a contract to reimburse physicians for civilian medical care provided to dependent wives and children of active duty servicemen. Comparative statistics for the four year period of 1957 through 1960 are as follows:

	1957	
Amount Paid	\$663,997.77	
Number of claims paid	12,756	
Amount paid	\$1,012,738.65	
Average payment per claim	\$79.39	
1958	1959	1960
18,651	11,905	9,915
\$1,498,422.05	\$1,057,569.80	\$813,388.51
\$80.34	\$88.83	\$82.04

Under a separate contract, the Association is authorized to reimburse hospitals for care provided military dependents eligible to receive Medicare benefits. Comparative statistics for the four year period 1957 through 1960 are as follows:

	1957	
Average hospital payment per case	\$78.67	
Average hospital payment per day	\$14.98	
Average stay	5.3	
Cases	8,440	
Days	44,331	
1958	1959	1960
\$1,091,254.76	\$831,016.93	\$770,318.42
\$87.55	\$96.64	\$98.02
\$16.51	\$16.89	\$17.93
5.3	5.7	5.5
12,465	8,599	7,859
66,083	49,198	42,954

The hospital payment figures do not include the patient payment to the hospital of the first \$25.00 or \$1.75 per day, whichever is greater. In the four years, a total of \$7,738,706 has been paid to North Carolina physicians and hospitals. Without the Medicare Program, it is likely that many of these dependents would have been "no-pay" patients or that there would have been a build up of military hospitals and requirement for additional military medical personnel.

Effective January 1, 1960, the Medicare Program was restored to essentially the same benefits as originally provided by the Program with the exception that dependents residing with servicemen are required to use

military facilities or obtain a Medicare Permit for civilian care if they desire medical care at Government expense. It was anticipated that the restored Program would increase the claims volume in 1960. That this did not happen is attributable to several factors:

1. 1959 figures were inflated by payment of many claims for maternity as a carry over from 1958 (patients initiating prenatal care prior to October 1, 1958 were permitted continued civilian care without the permit requirement, and claims were paid in 1959).
2. Dependents, doctors, and hospitals were slow to realize that benefits had been restored for plannable procedures, such as tonsillectomies, as of January 1, 1960.
3. The Government required that claims be withheld until after completion of outpatient post-operative and post-partum care (this deferred payment of many claims until 1961 that would have ordinarily been paid in 1960).

Information bulletins and fee schedule amendments have been printed and mailed to all members of the Medical Society announcing various changes in the Program.

Approximately 15-20 cases per month involving unusual or complex services not covered by the fee schedule or services requiring a professional decision by the Medical Society have been referred to the Medicare Committee for determination of fees.

The Medicare Committee continued to contribute greatly of their time and professional knowledge to work on behalf of the Medical Society members and to aid in the administration of this Program.

We take this opportunity to express our sincere appreciation and gratitude to the Medicare Committee, its Chairman, its Sub-Committees, and Mr. James T. Barnes for cooperation and assistance in the administration of the Medicare Program.

Date February 21, 1961

Respectfully submitted,

K. G. Beeston,

Administrative Assistant

E. B. Crawford,

Executive Vice President

MINUTES OF THE MEDICARE COMMITTEE

Sunday, March 5, 1961

Hospital Saving Association Office

Chapel Hill, North Carolina

Present: *PARENT COMMITTEE*

David M. Cogdell, M. D., Chairman

Vernon L. Andrews, M. D.,

Everett I. Bugg, Jr., M. D.,

Daniel S. Currie, Jr., M. D.,

A. Ledyard DeCamp, M. D.,

Powell G. Fox, M. D.,

J. Douglas McRee, M. D.,

Donald H. Vollmer, M. D.,

George A. Watson, M. D.

SURGERY SUBCOMMITTEE

Wayne H. Stockdale, M. D.,

Chairman

Howard M. Ausherman, M. D.,

George R. Miller, M. D.,

Guy L. Odom, M. D.,

Larry Turner, M. D.,

James E. Hemphill, M. D.,

Chairman, Radiology

Subcommittee

John C. Burwell, Jr., M. D.,

Chairman,

OB-GYN Subcommittee

Mr. James T. Barnes, Executive

Director, Medical Society of the
State of North Carolina

Mr. John W. Ruff, Medicare

Department, Hospital Saving
Association

K. G. Beeston, Committee

Secretary

1. ANNUAL REPORTS ACCEPTED - By motion and unanimous vote, the Committee approved the Annual Report of Hospital Saving Association to the Medicare Committee, and the Medicare Committee's Annual Report to the House of Delegates
2. FEE SCHEDULE ASTERISK ITEMS (NOTE: An asterisk appearing beside the procedure code in the fee schedule indicates that the fee is for surgery only and does not include pre and post-operative care.) - The Committee noted that there were numerous items in the schedule providing nominal fees for minor therapeutic and diagnostic procedures and which fee could not reasonably be expected to in-

clude pre and post-operative care and in-hospital management. Mr. Beeston cited the example of the \$25 fee for diagnostic cystoscopy as an example of a fee schedule arrangement in which diagnostic cystoscopy allowance would not be adequate for hospitalized treatment of an urinary tract infection of several days' duration. The Committee voted unanimously to request the Chairman to negotiate for the addition of an asterisk to the following procedure codes.

A. By Motion of Dr. Fox:

Code 3931 Cystoscopy, diagnostic,
initial

3932 subsequent

3933 with biopsy, initial

3934 subsequent

3935 with ureteral catheteri-
zation, initial

3936 subsequent

B. By Motion of Dr. Odom:

Code 5081 Encephalography (inde-
pendent procedure)

5084 Myelography (independ-
ent procedure)

5085 Discogram

5145 Subdural tap, unilateral -
Adult

5146 Subdural tap, unilateral -
Infant, under age 2
years

C. By Motion of Dr. Currie:

Code 5443 Paracentesis of cornea

5671 Orbital injection of alco-
hol for hemorrhagic
glaucoma - or intrac-
table pain

The Committee discussed Procedure Code 4123 "Circumcision under age 10" and decided not to request that this be made an asterisk item.

3. FEE SCHEDULE CODE 5698 "RESECTION OF LEVATOR PALPEBRAE MUSCLE" - By Motion of Dr. Turner and unanimous vote, the Committee instructed the Chairman to negotiate with the ODMC to have the nomenclature of this fee schedule item changed to read:

Code 5698 Resection of levator
palpebrae muscle
(ptosis)

4. INTERPRETATION OF X-RAY FILM BY ATTENDING PHYSICIAN OR SURGEON -

The Chairman reminded the Committee members that this subject had been discussed at the September 30, 1960 meeting at Pinehurst and the Committee had ruled that compensation for x-ray interpretation would not be allowed when incidental to medical or surgical care and when done by the attending physician.

The Chairman stated there had been some objection to this ruling. After full discussion, the Committee confirmed the stand taken at the previous meeting. The Committee was of the unanimous opinion that allowing extra fees for interpretation of x-ray by the attending physician or surgeon would create difficulties and a bad precedent as related to this and other ancillary medical services.

5. CONSULTANT BILLINGS -

By motion and majority vote, the Committee ruled that Medicare claims with consultant billings in excess of \$15 must be accompanied by a statement from the physician certifying that the charge is his normal and usual fee for the service provided.

The Secretary inquired as to whether this would not impose administrative problems and whether some physicians might not resent being required to certify to a charge that had already been submitted above their signature on the claim form. The Committee advised that the Association should develop a form for this purpose and state clearly thereon that this was a requirement of the Medicare Committee of the State Medical Society.

6. CLAIMS ADJUDICATION -

The Committee broke into three groups to adjudicate six medical billings, nineteen surgical billings, and seven obstetrical billings.

Respectfully submitted,
David M. Cogdell, M. D.
Chairman

REPORT OF COMMITTEE ON MENTAL HEALTH

The Committee held two meetings during the year, one at Mid Pines on October 2, 1960 and again in Raleigh on March 19, 1961. Other functions of the Committee

have been carried out by correspondents and personal contact by the Chairman and Committee members.

In October, 1960, the Committee invited Dr. Robert M. Fink, Consultant, Mental Health Section of the N. C. State Board of Health to meet with them and present the request for additional State Funds to be included in the overall budget of the State Board of Health. He first presented the "A" Budget and then discussed the items under the "B" Budget. The long range goal of the Mental Health program is to have one new mental health clinic established each year and to work towards having 45 teams, working on the community level under the auspices of the State Board of Health. The second proposal is to increase personnel and services of the existing 11 mental health clinics. Dr. Fink has informed the Committee of recent applications for positions in North Carolina: 8 applications from psychiatrists; 20 from psychologists; and 8 from medical social workers. It is hoped that within the year, the Fayetteville and Wilson Mental Health Clinics will have full time psychiatrists. Dr. Fink's report was accepted as information.

Two years ago the Committee had expressed their preference to have the Mental Health Clinics placed under the control of the N. C. Hospital Board of Control. This preference has not been changed but the Committee did go on record, as of March 19, 1961, as favoring the request for additional funds for the expansion of mental health clinics and increasing personnel and services of existing clinic programs.

The N. C. Psychology Association has plans to have introduced in the 1961 General Assembly a Bill requesting State Certification of Psychologists. At the March 19, 1961 Committee meeting, three members of the Psychology Association met with the physician group and presented their Bill and stated their reasons for wanting such a Bill passed. Two years ago a similar Bill had been introduced and the Medical Society opposed it. The Bill was defeated in 1959. In the interim, no contact had been made by the psychologists with the physicians, even though the Mental Health Committee had

requested a joint meeting. After the Bill had been drafted, the Medical Society's Committee was informed that such a Bill was to be introduced in the 1961 General Assembly. Therefore, the joint meeting of the two groups on March 19, 1961. The Bill and its presentation was accepted by the Committee as information. Following this discussion, the Committee went on record again as opposing such legislation for Certification as it agreed such legislation was not necessary and that the psychologists could gain the same protection by forming their own Board of Certification as a professional organization, set up its own standards for membership; regulate its own professional practices, without having State legislative action or State Certification.

The Committee has continued its interest in Post-graduate training of General Practitioners in Mental Health. This expressed interest has been referred to the Committee on Post-Graduate Training and to the N. C. Academy of General Practice. Committee members have reported their participation in Post-graduate courses offered in the state and are pleased with the response. The Committee offers its cooperation in and for the expansion of such courses.

Respectfully submitted,
Allyn B. Choate, M.D.
Chairman

Committee Members:

Wilmer C. Betts, Jr., M.D.
E. W. Busse, M.D.
Milton S. Clark, M.D.
James F. Elliott, M.D.
John W. Ervin, M.D.
John A. Fowler, M.D.
Thomas T. Jones, M.D.
Hans Lowenbach, M.D.
Phillip G. Nelson, M.D.
James T. Proctor, M.D.
Walter A. Sikes, M.D.
Joseph B. Stevens, M.D.
David A. Young, M.D.

REPORT OF THE NEGOTIATING COMMITTEE

During this period the Negotiating Committee has met separately and jointly with representatives from the North Carolina So-

cietly of Radiology, the North Carolina Society of Pathologists and the North Carolina Society of Anesthesiologists in the capacity of an advisory group in the preparation of a brief to be presented to the Insurance Commissioner to implement the complete separation of professional benefits from all Blue Cross plans, placing the benefits where they properly belong in the Blue Shield programs. Dr. I. Beverly Lake of Raleigh has been retained by these, and represents the North Carolina Medical Society as a legal advisor to prepare a brief to be presented to the Insurance Commissioner. Dr. Lake is now proceeding with due haste and in the near future will have the brief prepared for its presentation.

It is the desire of the North Carolina Society of Pathologists to carry out the necessary procedures to have the Medical Practices Act amended by the Legislature to specifically name Pathologists as practitioners of medicine. The Legislative Committee has been so informed.

Respectfully submitted,
Dr. Theodore Raiford,
Asheville, N. C.
Dr. Hubert Poteat,
Smithfield, N. C.
Dr. Wm. F. Hollister, Chairman,
Pinehurst, N. C.

ANNUAL REPORT of the

PHYSICIAN'S COMMITTEE ON NURSING

Although it has not been an active year for this Committee, our interest in nursing has not diminished, and in some respects, it appears that our relationships with the various official nursing organizations has even strengthened. Our interest and activities have concerned the following:

Nursing Legislation.

During our October 1, 1960 meeting at Southern Pines, our Committee reviewed our joint sponsorship of an unsuccessful bill for the support of nursing schools and nursing scholarships presented to the 1959 General Assembly and endorsed in principle new legislation for nursing scholarships to be presented to the 1961 Legislature by the State Nurses' Association. Fortunately, however,

no specific bill will be necessary, since the request made by the nurses to the Advisory Budget Commission was translated into the Governor's Budget proposal, and if unchanged, will appear as a routine expenditure in the Appropriations Act. A sum of \$25,000 for each year of the biennium already appears as a new line item in the "Student Loan and Scholarship Fund" section of the budget of the North Carolina Medical Care Commission. Specifically it is intended "To Provide Annual Scholarships of up to a maximum of \$1,000 each to assist graduate registered nurses, pursuant to Commission regulations, in obtaining collegiate preparation for teaching positions with accredited diploma schools of nursing in North Carolina". Although slightly less than requested, the State Nurses' Association reports that they are pleased with the amount and with the placing of administrative authority under the Medical Care Commission. It is reassuring that some progress is being made after so many unsuccessful attempts at securing nursing scholarships. It appears, that the Medical Society will not have to put any further effort on this matter, unless the Governor's recommendation is challenged, although we urge our 1961-62 Nursing Committee to assure itself that the new regulations promulgated by the Medical Care Commission will meet the interests of our Society.

It appears that no attempts will be made to remove physicians from the State Board of Nurse Registration and Nursing Education, although this possibility always exists since North Carolina remains as one of only a few states with such representation.

Committee for Liaison with National Nursing Organizations.

Although we have no official relationship to this A.M.A. Committee, Chaired by Dr. Cleon Nafe, North Carolina is honored to have Dr. Elias S. Faison as one of the five other committee members. Through his courtesy and interest, our members have had an opportunity to become better informed of national activities concerning nursing.

N. C. Committee on Nursing and Nursing Education and N. C. Commission on Patient Care.

It has become traditional for these two organizations to meet concurrently one in the morning, and the other in the afternoon; one devoted to nursing education, the other to patient care. Dr. Brockmann and Dr. Smith have long and faithfully supported the Society's interest in these deliberations. Although history originally demanded that these functions be separate, some of the Medical Society and Hospital Association representatives believe that it is now expedient to combine these sessions and to elevate the resulting group to a more useful and effective role. This suggestion has been formally made, hoping that a small study subcommittee would give this idea serious consideration.

Other Business.

Through correspondence or telephone communication, the committee or its Chairman:

- 1) Took cognizance of a new degree program in nursing affiliated with East Carolina College in Greenville.
- 2) Obtained for headquarters, detailed information on the American Nurses' Foundation and their national campaign for raising funds for nursing research.
- 3) Investigate and report on certain derogatory statements made against the A.M.A. in the June 1960 issue of the *Tar Heel Nurse*.
- 4) Distributed copies of an excellent paper read by Miss Vivian M. Culver of the State Board of Nurse Registration and Nursing Education at our annual convention in Raleigh last May.
- 5) Generally, kept alert to events in nursing which could have a significant interest to North Carolina physicians.

As Chairman, I wish to commend the loyalty and interest of the members of this committee although major agenda items did not require frequent sessions. Because of my term of office as President of the North Carolina Hospital Association during 1961-62, I deem it proper that I not continue on this committee next year. However, I look forward to continued Society participation in the future.

Dr. Robert R. Cadmus, Chairman
Dr. Harry L. Brockmann

Dr. Badie T. Clark
 Dr. James E. Davis
 Dr. William D. James, Jr.
 Dr. David T. Smith
 Dr. Thomas J. Taylor

March 6, 1961

THE COMMITTEE ON OCCUPATIONAL HEALTH

There has not been any special activity of this committee since the meeting of the A.M.A. Congress on Industrial Health. This was held in Charlotte, North Carolina, October 10th, 11th and 12th. Prior to that meeting the entire committee had a rather heavy assignment and everyone cooperated and rendered yeoman service. The program of the Congress, in accordance with suggestions of your committee, was tailored to fit the occupational health situation in North Carolina. It was an excellent program and a large number of those attending expressed their appreciation to members of your committee and others who had worked on the program. Attendance was much better than was expected. We are grateful to Dr. John Kester, Chairman of the Mecklenburg County Society's Committee on Industrial Health, and his committee and to Miss Maribelle Scogins, Secretary, Greater Charlotte Occupational Health Council, and to Mr. C. C. Dudley, Secretary of the Charlotte Merchants Association, for the long hours and excellent service they rendered on behalf of the program and arrangements.

The meeting of the Governor's Council which was held in Raleigh January 27th was an interesting, instructive program but attendance was not as good as was anticipated due to inclement weather. Benny Goodman, M. D., of Hickory, North Carolina, has his organization of the North Carolina Chapter of the Industrial Health Association well under way.

Respectfully submitted,
 H. L. Johnson, M. D.,
 Elkin, N. C.
 Chairman of the Committee on
 Occupational Health
 Medical Society of the State of
 North Carolina

COMMITTEE ON POSTGRADUATE MEDICAL STUDY

The Committee on Postgraduate Medical Study met in the living room Terrace Cottage, Mid Pines, Southern Pines, N. C., Saturday, Oct. 1, 1960, at 8:00 P. M., with the following members present: Samuel L. Parker, Jr., M. D., Chairman, William P. Richardson, M. D., Wayne J. Benton, M. D., and George W. Paschal, Jr., M. D., Chairman, PROFESSIONAL SERVICE COMMISSION.

The Problems of Physicians' Continuing Education, Conference, Vol. I, No. I, August 1960, as presented in a colloquium that was held in New York on May 31, 1960, under the auspices of the Science Information Bureau was reviewed and discussed. It was interesting to note that the problems presented by this group were the same as those of our committee.

The status of organized and unorganized medical postgraduate offerings in North Carolina was evaluated. It was thought that we equalled in progress the progresses in the increasing knowledges and discoveries of medicine. In this southeastern region we were thought to be even ahead, however, there was not enough offered in depth. It was noted that there are courses listed in the AMA Journal in September and October. The responsibilities of the State Society to the profession in relation to postgraduate needs of its members are to stimulate interest in postgraduate courses listed and to see that the courses are improved insofar as possible. It was pointed out by Dr. Paschal that great progress has been made in medicine in the past 25 years and that the responsibilities of the State Society were decreasing with time. The greatest responsibility is to the men in the small towns who do not have the opportunity of attending the conferences and seminars that are offered in the larger cities.

The "What Goes On" publication of Duke University adequately covers those postgraduate courses that are offered in Virginia, North Carolina and South Carolina, and is a very helpful organ. All physicians are on the mailing list.

The UNC Extension Postgraduate courses

are quite effective. The courses are well organized and are geared to the needs of the profession and the desires of the participants. There is an average of from thirty to thirty-five men attending each session. The Sixth Medical District has access to both Duke Hospital and the North Carolina Memorial Hospital and are able to participate in the teaching programs and attend the conferences.

It was the opinion of the committee that a study - recommendation sub-committee - was not needed to exploit our needs and ways and means to affect essential programs.

The committee endorsed the resolution of the Mental Health Committee that continued emphasis be placed on psychiatric postgraduate study both for specialists and family practitioners and offered its support to the Committee on Mental Health. The Committee asked Dr. Richardson if the University of North Carolina Extension Division would consider putting on this program as a post-graduate course. Dr. Richardson stated that he was sure the division would and in turn asked for help from the Mental Health Committee to promote and collaborate the information.

Dr. Paschal suggested that, due to the change in times and threat of radiation, the Committee on Postgraduate Medical Study should make every effort to keep abreast of Civil Defense and be in a position to advise doctors and population of survival methods. He stated that this would be a wonderful opportunity to bring information, to administer precautions, and to give instructions to patients. There are new horizons for the medical profession in this field. The committee was asked to consider a program to inform doctors on how to manage in the event of a fallout - self sufficient for survival. This would render a great service to the people of North Carolina.

Samuel L. Parker, Jr., M. D.
Chairman

Wayne J. Benton, M. D.

R. C. Proctor, M. D.

W. Otis Duck, M. D.

Joseph A. Isenhower, M. D.

Wm. McN. Nicholson, M. D.

Wm. P. Richardson, M. D.
Frank R. Reynolds, M. D.

REPORT OF THE POLIOMYELITIS VACCINE COMMITTEE

This is a report of the activities of the Poliomyelitis Vaccine Committee for the year 1960-61 as required by the regulations of the State Society.

No meetings of the Committee were held since there appeared to be no reason for one.

I enclose copy of a letter dated September 15, 1960 to the Advisory Budget Commission of the 1961 General Assembly. A similar copy of this has previously been sent to your office and is self-explanatory.

I enclose a copy of a letter that I wrote to Mr. Charles R. Holloman, the Acting State Budget Officer, in February 1961; also a copy of Mr. Holloman's reply of February 24, 1961. This gives written assurance that funds will be available for the biennium 1961-63 for the implementation of our Compulsory Poliomyelitis Vaccine Program.

Parenthetically, it may be said that it is now quite obvious that the oral attenuated vaccine will not be available until next Fall —if then. So, nothing needs to be done about that now. It is my feeling that we have done everything that we can to persuade the individual physicians in North Carolina and the component County Societies to push immunization with Salk vaccine to the utmost of their abilities.

Respectfully,
Samuel F. Ravenel, M. D.,
Chairman

TO:

Mr. Charles R. Holloman,
Acting State Budget Officer
Department of Administration
Raleigh, North Carolina

FROM:

Samuel F. Ravenel, M. D., Chairman,
Poliomyelitis Vaccine Committee,
Medical Society of the State of
North Carolina

Dear Mr. Holloman:

Dr. J. W. Roy Norton informed me, in reply to my inquiry as to the status of funds

to purchase poliomyelitis vaccine in North Carolina for 1961-1963, that he has a statement from you in regard to that subject.

It is my impression:

(1) that funds to purchase poliomyelitis vaccine were allocated by the last General Assembly out of the Contingency and Emergency Fund for each year of the biennium;

(2) that this procedure will be necessary for each Assembly biennium as long as there is need for free vaccine to implement our Compulsory Program.

If my impression is correct, may I have a letter from you to transmit to the Medical Society of the State of North Carolina stating that funds will be available for this purpose in the years 1961-1963, just as they were in 1959-1961?

Respectfully yours,

S. F. Ravenel, M. D.,

Chairman,

Poliomyelitis Vaccine Committee
of the Medical Society of the
State of North Carolina.

February 24, 1961

Dr. S. F. Ravenel, Chairman,
Poliomyelitis Vaccine Committee
of the Medical Society of the
State of North Carolina

104 East Northwood Street
Greensboro, North Carolina

Dear Dr. Ravenel:

Funds will be available for purchase of poliomyelitis vaccine in North Carolina for 1961-1963 in an amount sufficient to meet the need to implement the free vaccine Compulsory Program.

As I indicated to Dr. Norton some days ago, there is a provision of our General Statutes which provides that the State Board of Health shall, as the need for funds arise, request an allotment out of the Contingency and Emergency Fund of the State for the purpose of meeting this expenditure. The Contingency and Emergency Fund is replenished by each General Assembly; and I have every reason to believe that it will be replenished by this General Assembly by an appropriation just as it has been in the past. There has been no disposition to abolish this fund during the ten years which I have been

serving in State Government.

Cordially yours,

Charles R. Holloman

Acting State Budget Officer

COMMITTEE ON PUBLIC RELATIONS

A Medical Press Award was given by the Committee for the first time to the North Carolina reporter judged as providing the most outstanding reporting of medical information to the public during 1960. The Committee plans to make this an annual award in the interest of stimulating accuracy of medical reporting in the North Carolina press. The 1960 award was won by Mr. Don Seaver of the Charlotte Observer and the presentation was made to him on February 11, 1961 at a luncheon as part of the Annual Conference of County Medical Society Officers in Pinehurst.

The Conference of County Medical Society Officers and Committeemen was again a major project of the Committee. Efforts and program topics were again directed toward orientation of newly elected county society officers to their duties and responsibilities as well as to the discussion of several topics of major concern to the medical profession today. Weather conditions forced a postponement from the originally scheduled date for the conference on January 28, 1961 to one two weeks later when it was finally held on February 11, 1961. This unfortunately had an unfavorable influence on the attendance. However, the Committee still feels that there is sufficient need for the conduct of such a conference concerned with socio-economic matters and that a conference should be held again in January of 1962.

Another new project undertaken for the first time has been the sponsorship of first and second place trophies for winners of the Rescue Squad competition at the Annual Meeting of North Carolina Association of Rescue Squads. County Medical Societies are urged to offer their cooperation to local rescue squads and offer assistance wherever possible.

The Public Relations Bulletin has been continued on a nine issues a year basis, appearing monthly with the exception of May, July and August. The Bulletin remains a

popular method of providing the membership with prompt and brief information about meetings and other items of interest to the profession as evidenced by the frequent requests received from various interested groups for material to be included in a forthcoming issue.

An exhibit at the North Carolina State Fair, October 11-15, 1960, was again sponsored in behalf of the State Society. Educational content of the exhibit outlined "Seven Paths to Fitness" highlighting Proper Medical Care, Nutrition, Dental Services, Exercise, Satisfying Work, Healthy Play and Recreation and Rest and Relaxation. The exhibit booth also offered an opportunity for visitors to have their blood typed and to receive an identification card recording this information. Educational literature was distributed at the fair booth and included first aid charts, personal health pamphlet information record cards, family health record booklets and a pamphlet entitled "What Everyone Should Know About Doctors."

Support of the High School Science Fair program has been continued through the North Carolina Academy of Science. Again, this includes a plan to invite one of the High School Science Fair participants in the Biological Science Division to display their exhibit at the Annual Meeting of the State Medical Society. This project has been continued in the interest of stimulating an early interest in the sciences among high school students. County Medical Societies are encouraged to lend their support to the local and regional High School Science Fairs.

Cooperation with other committees of the Society has been continued wherever such need was apparent and the Committee always stands ready to lend its assistance whenever so requested.

Currently the Committee is involved in two-fold efforts in behalf of driver safety. First, a meeting has been held with the Commissioner of Motor Vehicles at which the possibility of developing a simple supplementary questionnaire for use by driver license examiners in determining who should be seen by a physician to certify the physical fitness of an applicant for a drivers license under some of the more hazardous health

conditions. A physician, upon having such an applicant referred, would then make recommendation regarding physical fitness to drive in keeping with the manual, "Medical Guide for Physicians in Determining Fitness to Drive a Motor Vehicle," prepared and distributed by the American Medical Association. The Commissioner of Motor Vehicles has indicated interest in the possibilities of the program. It should be emphasized, however, that these are exploratory discussions and no positive action would be taken in this regard without further advice from the Society. Secondly, an ad hoc Committee has been named for the purpose of cooperating with the newly created North Carolina Highway Safety Council. This ad hoc committee has already developed a resolution for presentation to the Highway Safety Council expressing the interest in and the desire of the medical profession to cooperate. In addition an exhibit based on statistics relative to the highway safety program in North Carolina is being developed for appropriate showings.

The Committee would again like to reiterate its gratitude for the untiring and skilled efforts of Mr. William N. Hilliard, Executive Assistant for Public Relations, who has had the task of implementing the greater part of our program.

Respectfully submitted,
Edgar T. Beddingfield, Jr., M.D.
Chairman
March 31, 1961

COMMITTEE ON PHYSICAL REHABILITATION

During the year the Committee has received no subjects of complaint in the relationship of the members of the Society and the public services of Vocational Rehabilitation. It is the sense of the Committee that there have been no departures in policy in the administration of these public services and that a normal experience of service on the part of physicians and in their administration by the State agency has existed throughout.

While one advisory committee was called and held in Durham the Committee as such was not represented. However the advance agenda pointed to no great variation from

the considerations undertaken the previous year and heretofore reported upon.

There are no specific recommendations to the Executive Council and the House of Delegates other than the suggestion that this program fairly controlled by the State level does offer a salutary service to people generally in need and in that and its constructive accomplishments with individual handicapped people merits the support of the Medical profession in the State.

Respectfully submitted,
George W. Holmes, M. D.
Chairman

COMMITTEE ON RURAL HEALTH AND GENERAL PRACTITIONER AWARD

As Chairman of the State Society's Committee on Rural Health and Education, I submit the following Summary Report on the activities of this Committee for the year 1960-61.

Major emphasis has been given to the organization and development of the North Carolina Rural Safety Council and to the State and Area Community Health Conferences held during the year.

ACCOMPLISHMENTS OF GOALS SET FOR 1960-61:

1. Complete commitment to stimulate formation of a North Carolina Rural Safety Council. An organizational meeting was held in Raleigh on April 8, 1960 with the following officers elected: President, Hugh A. Matthews, M. D. (former Chairman of the Committee on Rural Health); Vice-president, R. Vernon Jeter, M. D. (Chairman of the Committee on Rural Health); Secretary, Howard Ellis, Agriculture Extension Service; Treasurer, Charlie Houck, Farm Bureau Mutual Insurance Company, and three members-at-large, Mr. A. A. Chappell, N. C. Farm Equipment Association, Wilson, N. C., Mrs. Frances A. Smith, Progressive Farmer, and Miss Nettie Day, Chief, Accident Prevention Section, N. C. State Board of Health.

The Executive Committee has held three meetings, one each quarter, during the year and the first annual meeting of this group is set for Friday, April 14, 1961 in Raleigh. The results of the Council's first

year of operation have been most gratifying and the ground work has been laid for continuing progress by cooperative efforts. Four Committees have been appointed: (1) Membership, (2) Constitution and By-Laws, (3) Research, and (4) Awards.

The Council has outlined specific areas for concentration of effort: (1) continuous educational programs and activities sponsored by the member organizations. One example being the Farm Pond Safety program conducted throughout the state with the cooperation of the Agriculture Extension Service and the Red Cross. Another project which has proved most successful is the Highway Traffic Safety program as a joint effort between Extension Agents and the Highway Patrol. (2) Initial planning has been completed for the Council to prepare and produce a series of T.V. spot announcements for use throughout the state. This project is estimated to cost \$1200 and contacts are being made to secure such monies for completion in 1961-62. (3) Long-range goal of the Council is to secure sufficient funds to employ a Farm Safety Specialist for North Carolina to work with the Council and be attached to the Agriculture Extension Service for continuous educational and demonstration work. (4) Primary concern of the Rural Safety Council is the elimination of safety hazards and promotion of safety practices among rural residents for home, farm, and community protection.

The Committee on Rural Health and Education is proud of the success of the Council's first year of operation and will continue to be closely identified with its functions.

2. Sponsor a State Community Health Conference for 1960.

The State Conference was held in Raleigh, N. C., on Wednesday, June 29, 1960. The Theme of the one-day meeting was "Recipes for Community Health Action". The entire program was a report of community organization and action for better health. Special reports were given on (1) Cabarrus County Tetanus Immunization Campaign, (2) Jackson County Rural

Health Day, (3) Organized Home Care Services for the Chronically Ill and Aged—Alamance and Person Counties reporting, (4) 4-H Health programs in Jones, Vance, and New Hanover Counties, (5) Organized Rescue Squad Action in Washington County, and (6) A Community Gets a Physician and Clinic—Cleveland County.

On the evening of June 28, 1961 a dinner meeting of the Advisory Committee and the Committee on Rural Health was held at which time it was agreed that State-wide conferences should not be held on an annual basis, but to give major emphasis to county and area conferences yearly, and for State Conferences to be held at three year intervals. It was also recommended by the Advisory Committee that the Committee on Rural Health join other interested groups in helping to strengthen their health projects and activities and to request program time on their programs to further their interest and concern in rural health and education programs. These recommendations were accepted by the Committee and further discussed at its meeting in Mid Pines, Oct. 1, 1960.

3. Sponsor four area Community Health Conferences in 1960-61:

Three area conferences have been held and the fourth will be held during 1961, as follows:

Asheville, N. C.—November 9, 1960

Laurinburg, N. C.—February 1, 1961

Wilson N. C.—March 22, 1961

The fourth conference will be held in the Piedmont section of the state, either Salisbury or Statesville in summer of fall of 1961.

There is a continued interest in the area conferences and the Committee has found it best to limit the area to four-six counties so that travel time is reduced and the program has more meaning when slanted to the special interests and problems of a given area. This is a change from the district conferences previously held. Excellent cooperation has been given to the Committee by local leaders with a result of better participation and a sense of responsibility shared by the professional

and lay groups within the smaller area. Results of these conferences have been gratifying to the Medical Society's Committee.

4. Assist in all spontaneous community health programs, projects, conferences, and demonstrations.

Committee members individually have participated on various community health programs throughout the state. These include: Rescue Squad Action; Safety program; 4-H clubs Health and Safety Fairs; P.T.A. programs; Home Demonstration Clubs; Community Development Clubs; Special Community surveys and studies; assistance in community evaluation for physician placement service; cooperation with local hospital programs; as well as selected projects of the State Medical Society.

This service will continue to be of primary importance to the work of the Committee and the members have proved themselves to be sincerely interested and cooperative with all movements aimed towards improvement of individual, family, and community health services, practices, and facilities.

5. Perfect coordination of objectives and purpose of the Academy of General Practice Committee on Rural Health with that of the State Medical Society's Committee on Rural Health.

Through duplication of membership on the two committees, the activities of one become a part of the other committee. Members of the General Academy's Committee receive Minutes of meetings, invitations to conferences, and a real effort is being made to correlate the functions of the two committees.

6. Continue projects itemized as "continuing projects" in this report.

7. Attend and participate in the A.M.A. Council on Rural Health's Regional Conferences scheduled for 1960-61.

Committee members attended and participated on the Regional Rural Health Conference held in Atlanta, Georgia, October 7-8, 1960. Also, members attended the Special Rural Health Workshop held in Chicago, February 4-5, 1961.

The Western Regional Conference scheduled for Salt Lake City in May, 1961 conflicts with the annual meeting of the North Carolina State Medical Society. Dr. W. Wyan Washburn, Council member, will attend and represent our Society's Committee on Rural Health

8. Renew invitation to A.M.A. Council on Rural Health to hold a Regional Conference in North Carolina.

An invitation has been issued to the Council from 1962 by the Asheville Chamber of Commerce. The invitation will be repeated.

9. Study, review, and selection of nominees for the General Practitioner Award. The Committee met in Raleigh on April 8, 1960 and selected three candidates submitted by County Medical Societies for the General Practitioner Award for 1960. The three nominations were made to the House of Delegates at the May annual meeting and Dr. W. A. Sams, Marshall, N. C., was the North Carolina winner for 1960. The other two nominations were: Dr. R. R. Weathers, Wake County, and Dr. Lloyd H. Robertson, of Rowan County.

The Committee on Rural Health will meet in Raleigh on April 14, 1961 to select the three candidates for 1961 to be submitted to the House of Delegates at the annual meeting in May, 1961.

CONTINUING PROJECTS:

1. Contact of State Committee with Advisory Committee and County Chairman:

- a. Reports, informational data, conference notices and summaries, information on special state and local projects, and other pertinent data pertaining to the functioning of this Committee has been disseminated to members of the Advisory Committee and to all County Chairmen during the year.

- b. One joint meeting between the Committee of the Medical Society and the Advisory Committee was held prior to the State Conference in Raleigh on June 28, 1960. Recommendations made by the Advisory Committee were accepted and adopted by the Rural Health Committee at its meeting on October 1, 1960 at Mid Pines.

- c. County Chairmen have taken the leadership in planning the area conferences and have presided and participated on conference programs.

- d. Members of the Advisory Committee have assisted in publicizing conferences, participated in special local health programming, requested information materials for distribution, published articles prepared by the Medical Society's Committee, and cooperated with the organization of the N. C. Rural Safety Council (one of the primary functions of the State Committee in 1960.).

- e. Every effort is being made by the State Committee to involve the county chairmen in local and area health functions. This has been well demonstrated in the area conferences this year and will be continued in 1961-62.

2. Continued emphasis given the 4-H Club Improvement program.

- a. One year subscriptions given to all 1960 County 4-H Health Kings and Queens. (A total of 143 subscriptions given by State Medical Society at a cost of \$214.50.)

- b. The Medical Auxiliary Community Health Chairmen or Presidents have continued their participation in this special recognition program by attending county 4-H Recognition programs and presenting the Gift Certificates to the county winners on behalf of the local and state medical societies.

- c. One trip to National 4-H Congress in Chicago, November, 1960 for a State 4H Health Winner. The State 4-H King of Health in 1960 is a freshman medical student at Duke University and his schedule would not permit his being away from classes to attend the National 4-H Congress. Therefore, the \$165.00 budgeted for this project was not spent in 1960. This project will be continued in 1961.

The Health Education Consultant attended the State Awards Luncheon at N. C. State College on November 26, 1960 and presented the Award to the State King and Queen of Health on behalf of the State Committee of the

Medical Society. Also, the State Winner in Safety received a telegram from the N. C. Rural Safety Council in recognition of his outstanding record. The telegram was signed by Dr. Hugh A. Matthews, President.

3. Continue emphasis on the "team approach" at the county level by:

- a. Each county medical society to have an active community health committee chairman who will serve as leader of the health team. Also, emphasis is given to having the Medical Auxiliary appoint a Community Health Chairman to work closely with the chairman of the county medical society.
- b. Promotion of county planning committees for study and development of local health programming and action.
- c. The Medical Society to continue working through existing community organizations to strengthen and direct their health activities.
- d. At least one new county health education project to be developed and promoted in each district during the year.

4. Encouraging Physician Placement Service Program, especially in rural areas. Committee members have continued to be of valuable assistance to the headquarters office in this service program.

5. Attendance and participation in National, Regional, and other programs sponsored by the A.M.A. Council on Rural Health. In 1960—attendance and participation in the Regional Conference held in Atlanta, Georgia, October 4-5.

Attendance to the Special Workshop held in Chicago, February 4-5, 1961. North Carolina is represented at all Council meetings by Dr. W. Wyan Washburn, a member of the A.M.A. Council. Dr. Washburn keeps the State Committee and headquarters office informed on all programs and activities of the Council and promotes the Committee's cooperation and participation through the year.

6. Continue to be a *service committee* to the Medical Society, in that the Committee and the Health Education Consultant cooperate with and serve all Medical Society Committees in bringing specific programs

and information to the attention of county and community groups through joint planning committees, conferences, and special projects.

7. Continued leadership given the North Carolina Rural Safety Council's program.

8. Continued emphasis given to local health activity under the leadership of local physicians and other health personnel within the county and/or area.

The State Committee stands ready at all times to assist county chairmen and community leaders with specific program planning and activity. We also recognize and welcome the cooperation and support of other medical society committees, officials, counselors, and the headquarters staff in the interest of community health education and improvement.

Respectfully submitted:

R. Vernon Jeter, M. D.,
Chairman

SUPPLEMENTARY REPORT OF THE HEALTH EDUCATION CONSULTANT March 1960 - March 1961

The health education consultant as a staff member of the headquarters office has diverse responsibilities in connection with the total Medical Society's program of work. Assignments and functions are carried out under the direction of the Executive Director, Committee Chairmen, and officers of the Society.

Major activities include:

1. Consultation with assigned Committee Chairmen and assistance in Committee functions, study, and program projection.
2. Liaison contact with key state agencies and organizations interested in and concerned with community health improvement.
3. Assistance given the Executive Director in the Physician Placement Service as to community evaluation, contact with physicians, and assistance given to community leaders in their efforts to attract additional health and medical personnel.
4. Assistance given to program planning of selected Committees and espe-

cially to the Committee on Rural Health and Education for state, area, and local conference programming and with special local demonstration projects.

5. Assistance and cooperation with major farm organizations in helping to plan health activities and projects.
6. Cooperation and assistance in "special" projects of other agencies having health and medical implications: such as organization and development of the North Carolina Rural Safety Council and the North Carolina Council on Foods and Nutrition, both organizations organized during 1960. The health education consultant has served as a Committee Chairman for both organizations.
7. Continued cooperation with the Agriculture Extension Service and its specialized programs with home demonstration clubs, 4-H Clubs and Community Development. Specific assignments with each group have been carried out during the year by the consultant.
8. Attendance, and participation in national, state-area, and local programming for specific Committees of the State Society:
 - a. State and area Community Health Conferences
 - b. A.M.A. Congress on Industrial Health, Charlotte, N. C.
 - c. A.M.A. Regional Conference on Aging, Atlanta, Ga.
 - d. A.M.A. Council on Rural Health, Area Conference, Atlanta, Ga.
 - e. Special Workshop on Home Care, sponsored by the American Hospital Association, A.M.A., and the Blues Commission, Chicago.
 - f. A.M.A. Conference on Schools and Physicians, Chicago.
 - g. State Governor's Conference on Aging and the 1961 White House Conference on Aging, Washington, D. C.
 - h. State School Health Conference, sponsored by the State Society's Committee on School Health.

i. A.M.A. Area Conference on Perinatal Mortality Study, Atlanta 1961.

j. Various state agency and organization annual meetings and special committee assignments.

k. Attended all state Society official meetings during the year.

l. A.M.A. annual meeting, June 1960, Miami, Florida.

In the area of Rural and Community Health, major responsibilities have been:

1. Assisting the State Committee Chairmen and its members in planning, organizing, and executing plans for the 1960 State Community Health Conference and the three area conferences. A fourth area conference will be held during 1961. The three conferences held prior to this report period were: Asheville, November 9, 1960; Laurinburg, February 1, 1961; and Wilson, March 22, 1961.

The State Community Health Conference was held in Raleigh June 29, 1960.

2. Assisting individual physicians and community leaders in planning and carrying out local health activities such as health and safety fairs; surveys; community evaluation of existing services and unmet needs for the community; and other specialized efforts for community health improvement.
3. Assistance given in the organization of the North Carolina Rural Safety Council and the Council on Foods and Nutrition, having special committee assignments in each organization.
4. Maintained liaison contact between the State Committee on Rural Health and members of the Advisory Committee and other interested lay and official organizations engaged in community health services and educational programs for improved health practices.
5. Correlating the interests of the Committee on Rural Health and Education with those of other medical society committees for a more unified

effort in selected programs and activities, including the Medical Auxiliary.

Assistance given other Medical Society Committees:

By assignment, the health education consultant has cooperated with the public service commission and all committees grouped in this Commission. Major attention has been given the Committee on Chronic Illness which has had multiple duties and functions to perform on behalf of the Medical Society during the past two years. Specific responsibilities were carried out in connection with (1) Hospital Discharge Study of 1959-60; (2) Governor's Conference on Aging and (3) White House Conference on Aging; and (4) study and formation of recommendations to the Executive Council for the implementation of the Mills-Kerr Act in and for North Carolina. This Committee is expected to continue its study, evaluation, and recommendations for future needs of the chronically ill and aged patients.

In addition to the 12 Committees grouped under the Public Service Commission, assistance has been rendered to the Committee on Nursing, and to the Committee on Rural Health and Education which are grouped under different Commissioners. The consultant has attended all meetings of these Committees and assisted the Chairmen with reporting and other special duties.

Physician Placement Service: This is a very vital program of the state society and assistance is given to the Executive Director upon request: be it community visitation and evaluation; assistance given physicians seeking location either by personal interview or by correspondence, and assistance given the community in need of additional medical personnel as to ways and means of organization for local action as a step forward in gaining additional personnel. Close contact is maintained between the A.M.A. Placement Service program; the Sears Foundation, which is making a definite contribution in helping communities build modern facilities and to gain medical personnel. In North Carolina, we have one facility built at Locust, N. C., through the assistance of the Sears Medical Foundation and the physician began prac-

ticing in the community as of September, 1960. The dedication was held on September 10, 1960. Two other communities have agreed to work towards building such a facility in an effort to gain a physician. The Director of the Sears Medical Foundation program, Mr. Norman H. Davis, has visited the state twice during the past year and met with these two community groups, Prospect Hill-Cedar Grove community and Middlesex, N. C. Other communities have been surveyed by the Foundation but no further local action has developed at this time. Having the Sears Foundation to make their survey as to the medical economic potential of a given community is most helpful to the community and to the State Society as it gives additional information to that obtained by our Community Information Form.

Communities visited and assistance given in the interest of Physician Placement during the year have been: Sugar Grove, Watauga County; Middlesex, Nash County; Prospect Hill-Cedar Grove, Caswell-Orange Counties; Locust, Stanly County; Rowland, Robeson County; and Oak Ridge in Guilford County; other visits were made to see individual physicians for additional information on these communities.

Liaison contact with allied health and community organizations: It has been stated that the health education consultant maintains close contact with all members of the Advisory Committee to the Rural Health Committee and also with state agencies, voluntary health organizations, and state organizations having an interest in health and safety improvement and/or service. The consultant maintains membership in certain professional organizations for self-development and for liaison contact for the medical society. Assistance and cooperation has been given to all divisions of the Agriculture Extension Service and the consultant serves either as a member of or as advisor to various health committees of professional and lay organizations. A continued appointment as Editor of the N. C. Health Council Newsletter has been carried out as in the past six years. As Editor of the Newsletter, attendance to all Executive Committee meetings, annual meeting, and special project commit-

tees of the Health Council has been fulfilled. Upon request, special committee meetings have been attended by the consultant as representative of the President, Mr. James T. Barnes.

Community contacts for specific community health programming: Visits have been made to counties included in the three area community health conferences and special planning meetings have been held with key leaders in organizing the area conferences. Other counties and communities have been visited in the interest of some special health program or project sponsored by physicians, public health, or organized community club, in addition to those visited in the interest of physician placement. During the past year, several meetings have been attended in the interest of the Mills-Kerr Act and its implementation in and for North Carolina. These have been special physician groups who have held separate meetings for discussion of the above named legislative program.

Special requests for service:

1. Served as State Woman's Chairman for 1960 June Dairy Month promotion program.
2. Served as a judge in the Northwestern Area Community Development Club Contest.
3. Served as advisor to a special sub-committee of the State Grange on financing of medical care for the aged.
4. Served as Chairman of a sub-committee on legislation for the Capitol Grange and the State Grange.

Statistical Report:

1. Attendance and participation in Medical Society Conference and committee meetings: 40.
2. Contacts with individual physicians outside of committee meetings for program planning and development: 30.
3. Attendance and participation in conferences and committee meetings with allied organizations and agencies on a liaison basis: 25.
4. Field trips made to 25 counties during the year on medical society assignment and programming, including area conference planning and

special community health activities.

5. 14 field trips made in connection with physician placement service: 12 office conferences with community leaders and/or physicians seeking practice locations.
6. Out-of-state conferences attended: 8.
7. Mail Count: 7,576.
8. Telephone calls: 715.
Local: 662.
Long Distance: 53.

COMMITTEE ADVISORY TO SCHOOL HEALTH AND STATE COORDINATING SERVICE

The Advisory Committee on School Health of the Medical Society of the State of North Carolina has been very active at the local and state levels this past year. The members have stimulated their local societies to increase activity in the field of school health. There has been an increased number of local societies to establish school health committees. These committees have cooperated with the local P.T.A. as well as the State P.T.A. Congress in sponsoring the continuous health supervision of the child from birth through school by the private physician. Members have made talks before local P.T.A. groups and local medical societies.

Several counties have already abolished the preschool clinics in favor of the child's examination by his private physician and more counties are in the process of abolishing these clinics. Forms for reporting these examinations have been devised and distributed. There is a great deal of enthusiasm for this project.

The State Committee has cooperated with the Youth Fitness Commission of North Carolina and one local medical society has appointed a Youth Fitness Committee that has been very active having made a number of appearances before schools and organizations.

In March and April, 1960, Sanford was one of the test sites for the North Carolina Youth Fitness programs carried out each Saturday morning. The school officials felt the program was well worthwhile.

The study of North Carolina's health textbooks by a member of the Committee has

been completed.

During the summer term, 1960, a school health course was taught at High Point College. This was the first course ever offered in the state that carried college credit. The Committee cooperated with the College in the planning of the course and the chairman served as one of the teachers.

On October 22nd, the third School Health Conference to be sponsored by the North Carolina Medical Society was held in Raleigh, N. C. It was well attended and the program was very valuable including following an address of welcome by Mrs. H. S. Godwin, president of the North Carolina Congress of Parents and Teachers, an address by Bob Cox on the Youth Fitness program and talks by authorities in their respective fields on health problems showing an increase, namely, dental, hearing, vision and accidents. The afternoon consisted of a luncheon address on the importance of the continuous health supervision of children by Doctor W. W. Washburn and reports of study committee findings by school authorities on "Children with special needs" and "Immaturity of children entering School". A summary of the days activities and address by Doctor Donald A. Dukelow of the American Medical Association proved to be so excellent that it has been forwarded to the North Carolina Medical Journal for publication. A special report on the White House Conference for Children and Youth was prepared by Doctor Susan Dees, one of the North Carolina delegates and distributed to all persons attending the Conference.

The Conference closed at a high note of enthusiasm for those attending and the Medical Society's Committee on School Health was congratulated for providing the opportunity for physicians, teachers, parents and interested community health agencies to meet together for the purpose of discussing and evaluating present school health needs, services and instruction.

RECOMMENDATIONS:

1. That the biennial Conferences on School Health be continued at the state level and county societies be encouraged to promote local Conferences at regular intervals.

2. That the state committee and local

medical society committees continue to actively support their joint project with the P.T.A. - the continuous health supervision of children from birth through school by their private physician.

3. That the state committee and local medical society committees cooperate in every way possible with the work of the Youth Fitness Commission of North Carolina.

4. That the committee continue to pay special attention to the health textbooks used in the schools of the State, review them periodically and offer constructive criticism when advisable to the proper authorities.

5. That the committee continue to cooperate with High Point College in its summer course on School Health if this course is again offered by the College.

6. That contact be made through Doctor Charles F. Carroll with a request to have School Health as part of the Annual Conference for Superintendents and Principals held at Mars Hill, N. C., each year.

7. That the committee continues to contact local medical societies to stimulate the formation of active school health committees.

8. That each member of the Committee continue to assume leadership in his own county, making contacts with school leaders, P.T.A., health department and county medical society in the interest of improving the present health instruction, school environment and health services to and for school children.

9. That the name of this Committee be changed from the Advisory Committee on School Health to the Coordinating Committee on School Health and that it become an active Committee at state and local levels rather than a passive one.

Respectfully submitted,
Irma Henderson Smathers, M.D.
Chairman,
Advisory Committee on School
Health

Bruce Blackman, M.D.
Jean Davidson Craven, M.D.
Charles H. Gay, M.D.
William C. Hunter, M.D.
Floyd L. Knight, M.D.

Joseph S. Bower, M.D.
 Robert C. Pope, M.D.
 William T. Rainey, Sr., M.D.

COMMITTEE ADVISORY TO STUDENT A. M. A. CHAPTERS IN NORTH NORTH CAROLINA

The work accomplished by the Committee during 1960 was accompanied by what appears to be the most successful year of Student A. M. A. organization in our state. Reports from the Chapters at our three medical schools indicate a mounting interest in both organizational and scientific aspects among the members. This enthusiasm of the students was evidenced in June 1960 by the induction into the office as National President of the S. A. M. A., Mr. Bill Waddell, of Duke Medical School.

The Committee is of the opinion that the purpose for which it is working is one of the most worthwhile of the State Society, in that it serves to stimulate interest among our medical students and a feeling of responsibility toward civic and community affairs and organized medicine, to which the response of the students has been most gratifying.

The May 1960 meeting of the Society in Raleigh was attended by ninety students. Provided by the Society were transportation from the Medical Schools and dinner and lodging for Sunday night. The dinner meeting was climaxed by an excellent address by Dr. John R. Kernodle and honored by the presence of Dr. Leonard W. Larson, president-elect of the AMA, who presented advice of great value to future practicing physicians. Afterward, scientific papers were presented by the students.

One delegate from each of the three SAMA Chapters was given financial assistance in their trips to the National SAMA meeting in Los Angeles. The 1961 National meeting is planned for Chicago.

The Committee met in Southern Pines on October 1, 1960, and was well attended. Several items were agreed upon and recommended: (1) The Society should again sponsor a dinner meeting for the SAMA members on Monday night of the Annual Society Meeting to be held in May, providing trans-

portation to and from Asheville, the dinner and overnight lodging, and requesting that the guest speaker be selected in cooperation with the Student Chapters. (2) That the Finance Committee of the Society be asked to allocate funds to cover the cost of sending three student delegates to the National SAMA meeting in 1961. (3) That all Alumni meetings be scheduled for Monday and Tuesday so that students may be invited to attend the luncheons while in Asheville. (4) That the Presidents of the Three SAMA Chapters compose a committee to work with Mr. Barnes on the details of the arrangements, such as attendance, travel, cost, etc., at annual meetings, and (5) That the three Chapter Presidents be invited to meet with the Society's Advisory Committee at the annual conclave of Committees as a customary policy in the future.

Finally, it has been recommended that the 1960 President of the National Student AMA, Mr. Bill Waddell of Duke, be recognized for his honors and attainments in the House of Delegates and be invited to speak before one of the General Sessions of the Society's Meeting in May.

John P. Davis, M. D.,
 Chairman
 Isaac E. Harris, Jr., M. D.
 Charles C. Young, M. D.
 John W. Nance, M. D.
 Robert A. Ross, M. D.,
 (Consultant - UNC)
 Wm. P. J. Peete, M. D.,
 (Consultant - Duke)
 Robert L. McMillan, M. D.,
 (Consultant - BG)
 Ernest Fergusson, M. D.

COMMITTEE OF VETERANS AFFAIRS ANNUAL REPORT 1960-1961

This committee, during 1960-1961, met in Durham, February 11, 1960, and at Chapel Hill, March 2, 1961.

The purpose of this committee is to provide better care for service connected veterans: (1) The Home Town Care Program provides medical care to the service connected veteran by a home town physician of his choice; (2) Veterans care in V. A. Hospitals and Clinics

is not a direct function of this committee, but we are concerned that the veterans admitted should be service connected and should be given priority for admission, and upon discharge, a medical summary be sent to the home town physician with authorization for follow up therapy; (3) Professional Relations - through the intermediary we publish and distribute the fee schedule, disperse information pertinent to changes in the program, and by direct visits to physicians, instruct the physician and their secretaries in the appropriate procedures to complete the necessary reports and billings. Through the same media we instruct the physician as to the eligibility of the veteran for the specific disability for which he is service connected and so avoid treatment and billing for illness for which the veteran is not eligible.

In June 1960 a new contract was signed with the Veterans Administration for one year. It was the same contract we signed in June 1959. The Veterans Administration resisted our intermediary in 1959, 1960 and again now in 1961, in spite of the fact that the A.M.A. statistics has proven that our system of caring for the veteran exceeds any other in the United States.

The major criticisms of the new contract are as follows: (1) Our intermediary, the Hospital Savings Association, has been stripped of authority under the guise of economy, and is limited to merely paying bills as specified by the V. A. Regional Office in Winston-Salem, N. C. (2) The information on Veterans and Doctors participating is limited to I.B.M. cards supplied by the V. A. (3) Our contact officer in the V. A. Regional Office has been forced to resign due to economy. Mrs. Turbiville, in the past, visited physicians and helped their secretaries in routine procedures and also to solve annoying problems. (4) All authorizations for treatment initiate from the V. A. Office and all reports and billings from the doctors are sent to this office. In the past, medical reports on chronic illness were required every 3 months, and now monthly. The Regional Office representatives reported that the requirement of monthly reports was initiated in Washington, and they could not change it.

In spite of these changes, the participation by North Carolina physicians is far above the percentage participating in other states. During 1960 the V. A. paid N. C. physicians \$193,890.30. On the average 1207 veterans were treated per month by 402 physicians for \$16,157.00 or \$13.39 per veteran. These are figures based on V. A. reports and is a rare demonstration of economy in government. We are proud to be a party in this service.

At present, the V. A. has begun to negotiate for the next annual contract. They suggested that we permit them to pay the physicians. This we shall refuse even though the V. A. efficiency is based on the fact that this is our only means to know who is participating. The only means whereby our members can know that the Medical Society is involved and available to help them if a problem arises. During the year about 20 such problems came to our attention and were corrected.

We would recommend that organized medicine look into H R 7965 which was passed, and for the first time permits non service connected veterans to have their diagnostic studies carried out on an outpatient basis prior to admission to the hospital for definitive treatment. This law increases efficiency, but at the same time, adds the equivalent of 5,000 hospital beds for non-service connected veterans. There are 125,000 beds in use now for veterans, and this actually would raise the figure to an equivalent of 130,000, and what will come next!!!

We would further recommend to the incoming president of our society to organize a commission, devoted to the problem of all phases of government medical care, county, city, and federal, and to this commission assign a full time executive to study all proposed legislation relative to this subject, and transmit it to the appropriate committee for action.

Respectfully submitted,
S. L. Elfmon, M. D.

COMMITTEE FOR LIAISON TO THE INSURANCE INDUSTRY

During the calendar year 1958, the latest year for which fully completed figures are

available, \$70,206,000.00 was paid out in health insurance benefits to hospitals, physicians, and policyholders in North Carolina by the various types of insurers. Out of this total, Blue Cross, Blue Shield, and other hospital medical plans (including Medical Society approved or sponsored plans) disbursed a total of \$20,858,000.00 in benefits. The so-called commercial insurance companies paid out during that period \$49,348,000.00 on claims in that field in North Carolina. The figures for the insurance companies do include those amounts paid out in benefits for loss of income which is an integral part of so-called "health insurance". Partial figures are available for 1959 and 1960 but are not immediately available in a format that would be comparative.

Your committee, The Insurance Industry Committee, is the first committee of the Medical Society of North Carolina to work with and to represent Medicine to a group that is disbursing fifty million dollars in medical care payments each year in this State. These payments include many dollars allocated in direct or indirect payments to the physicians of North Carolina. This so-called third party is woven firmly into the warp and woof of the economic fabric of the membership of this Society. Your committee remains an "ad hoc" committee, having been confirmed in this status by a "tour de force" which was designated "fait accompli". The committee would point out that fifty million dollars is a fact accomplished, also. The committee commends to the Society a more flexible position with reference to these companies whose status in our economy is only irrevocable by the same disaster that could also engulf the private practice of medicine as we know it.

During the first few months of the 1960-61 year, the committee associates with Dr. Jack Mohr as Vice Chairman ably carried on the work of the committee. A number of meetings have been held in connection with the forwarding of the work of the committee. The usual several joint meetings have been held with the corresponding committee from the Insurance Industry in this State, which, incidentally, is an arm of the Health Insurance Council - a national organization

of insurance associations and societies. A few of the projects which have been completed or definitively explored are listed for the report.

- 1— The completion of a waiting room pamphlet titled "Your Guide to Voluntary Health Insurance". This was published in an ingenious manner by our Executive Offices with a run of 10,000 copies and has been the subject of favorable comment and publicity over the country. One of the larger companies has requested permission to re-publish it on a national basis carrying the imprint of the State Society. This effort was edited by Dr. Barry Hawkins.
- 2— A further article in the work for publication in the State Medical Journal on insurance matters.
- 3— Work is continuing on the recommendations to the Executive Council with reference to the establishment of an Insurance Review Board. Correspondence and personal interviews with certain key people connected with these efforts in other areas have been carried out. The committee does not favor the mechanism as outlined in some of the now extant Review Committees as we feel that they are purely medically punitive. We have the assurance of the Industry Committee that in this State the function will be bilateral. Our position in this instance is to make haste slowly but to definitely recommend the establishment of such a Board. Rapidly expanding major medical coverages make it imperative that a Board of this nature be created.
- 4— Conferences have been held with Mr. Commissioner Gold relative to matters in which there was a joint interest with his Insurance Department. We found Mr. Gold extremely cooperative and helpful. Arising out of one of these interviews was a statement in writing that no deviations from his rulings regarding standard claim report forms had been allowed. Therefore, any physician

may refuse to complete a non-conforming claim report form.

- 5—Upon study and advice, and in the absence of a committee on Ethics in the Society framework, this committee has given the opinion that it is not unethical to make a reasonable clerical charge for the completion of forms wherein the physician *could not* be a first assignee of the proceeds of the claim.
- 6—Efforts have been made to clarify the status of the practitioner of chiropractic with reference to an inclusive, and we feel erroneous, classification as a physician with reference especially to insurance.
- 7—We have listened to some of the problems of the insurance people with reference to certain problems that arise with certain practitioners of medicine, and we have found cause to agree with their complaints on occasions.
- 8—Work is now going forward with reference to bringing in the commercial carriers on a statewide (a) over sixty-five (b) all ages coverage, on a service and/or indemnity basis depending upon income status, professional fee coverage controlled by the State Medical Society. We find considerable support for this project both from the companies and from many members of the profession.
- 9—Panels on insurance matters at county medical society meetings have been participated in by members of this committee.
- 10—Other activities are not listed in the interest of reasonable brevity of this report.

Submitted,
COMMITTEE FOR LIAISON
TO THE INSURANCE
INDUSTRY

Frank W. Jones, M. D.
Chairman

NOTE: We may decide to add further to this report following the March 18 - 19 joint meetings at Mid Pines

Associates:

Dr. Grover C. Bolin, Jr.
Dr. Andrew J. Dickerson
Dr. Archie Y. Eagles
Dr. Cleon W. Goodwin
Dr. Charles I. Harris, Jr.
Dr. Barry F. Hawkins
Dr. Jack E. Mohr
Dr. George T. Wolff
Dr. James R. Wright

BLUE SHIELD STUDY COMMITTEE (Ad Hoc to Blue Shield Committee)

Subject: A new corporation—North Carolina Physicians Services, Inc.:

To: All members of the North Carolina State Medical Society:

By resolution of Dr. Amos Johnson, President, and with approval of the Executive Council, a committee was appointed in June 1960 to study the Blue Shield situation in North Carolina. This committee consisted of the following members:

Doctors V. K. Hart, Willard Goley, Ted Raiford, George Paschal, Ralph Garrison, Tom Murphy, and J. H. Shuford, Chairman. This Committee met two times with Mr. Ned Parrish of National Blue Shield attending the second meeting in an advisory capacity.

The motivation behind the appointment of the Committee was the belief of President Johnson that Blue Shield in North Carolina had not been adequately supported by the physicians of the state; had not really been developed in its broadest scope; coverage was not wide or broad enough; that premium rates had not been reflected in broader coverage; and that built up reserves had not been reflected in lower premium to the public.

Further it was pointed out that at present there are two competing Blue Cross agencies in the state with Hospital Saving Association being the only designated Blue Shield agency. Hospital Care Association has been desirous of recognition as a Blue Shield agency and has been denied this recognition by National Blue Shield on the basis of their policy and not allowing two competing agencies covering the same geographical area. This conflict of interest between Hospital Saving Association and Hospital Care has

been reflected in dissatisfaction among the doctors and has blocked, to some degree, furtherance of Blue Shield in North Carolina. Furthermore, it was pointed out that in the present Blue Shield mechanism in North Carolina the State Medical Society has not provided for cooperation with or support of the commercial carriers, who are also vitally interested in the maintenance and growth of pre-paid voluntary health insurance.

The Committee after studying this situation in all its ramifications, unanimously voted to recommend to the Executive Council and to the House of Delegates that a new corporation be formed, namely North Carolina Physicians Services, Inc. This action was approved by the Executive Council in September 1960 and reaffirmed in February 1961.

The organization of the new corporation was envisioned as follows:

Articles of Incorporation, By-Laws, and Participating agreements would be drawn up by legal counsel; Application would be made for a charter; a Board of Trustees, consisting of a majority of Doctors, would be elected; application would be made to National Blue Shield for recognition; Hospital Saving Association and Hospital Care would be offered opportunity to act as agents of the new corporation; and provisions would be made to allow commercial carriers to participate. In brief summary, the North Carolina Physicians Service, Inc., was envisioned by the House of Delegates, when activated by this body last year in Raleigh, as an active corporation which would (1) seek, obtain and retain unto itself the National Blue Shield emblem, (2) formulate, subject to approval of the House of Delegate, broad coverage Comprehensive (full payment) Medical service (not hospitalization) pre-payment policies for realistic levels of income to be available to the public at premium rates compatible with each income level, (3) underwrite the fiscal soundness of these policies by guaranteeing the provision of services as contracted, (4) contract the sale and fiscal administration of these policies to other insurance corporations (perhaps both North Carolina Blue

companies), (5) endeavor to obtain a maximum of participation and cooperation from the membership of this Society. Thereby, as outlined above, this new corporation, not envisioned as a non-operating "paper corporation" founded for ulterior motives, should and could provide for the people of North Carolina a high level of adequate prepaid medical care coverage not presently available in our State.

The Chairman informed Hospital Savings Association and Hospital Care of the proposed new corporation and its intent. Hospital Care agreed to negotiate an endorsed the proposition. Hospital Saving opposed any change in the present status, and would not accept any negotiation on the basic proposition.

In order to further explore the situation, consultation was held with National Blue Shield and its legal Counsel. The rulings of National Blue Shield are as follows:

1. Reiteration of policy not to allow competing Blue Shield agencies covering identical areas.
2. There was no provision or precedence for Blue Shield recognition of a non-operating agency as had been conceived by the Committee.

The Chairman reported to the House of Delegates at the call meeting February 26, 1961, on the actions, findings, and recommendations of the Committee. Dr. Johnson reiterated his thoughts on organized Medicine's responsibility to the public and called attention to the accusation that Medicine was always against something and had not taken the lead in providing Medical Services, at reasonable realistic cost, to the lower income levels of the populace. Dr. Johnson stated his belief that the Mills-Kerr Bill was an indication of further intrusion of the Federal Government into health care and that Medicine must take definitive action in this direction of providing services at reasonable cost, or be lost in the Socialistic trends now rampant in our country. Dr. Johnson proposed and sought discussion on the question, "Will the doctors of North Carolina participate in, endorse, underwrite, and expedite the formation of a new corporation, dedicated to the proposition of providing service

benefits to the people of North Carolina at a realistic income level?" He stressed the point that unless a large majority of the doctors would agree to participate in this proposal, then there was very little use in pursuing it further. There was discussion from the floor and the trend of thought seemed to indicate a willingness to pursue a solution to this proposition. An unofficial show of hands, indicating interest in and approval of the proposition, indicated almost unanimous approval from the Delegates present.

The above information is brought to your attention so that a clear understanding of the proposal of Dr. Johnson would be provided. It is the desire of Dr. Johnson that your willingness or unwillingness to participate in this proposal be indicated by checking the appropriate box provided in the accompanying enclosure.

Further information may be obtained from your delegates if you so desire.

J. H. Shuford, M.D.
Chairman

ANNUAL REPORT OF TRUST STUDY COMMITTEE AD HOC TO THE FINANCE COMMITTEE

The Trust Study Committee ad hoc to the Finance Committee was appointed by President Lenox Baker in January, 1959. This committee has been charged with the responsibility of keeping abreast of the Keogh type legislation known as the "Self-employed Individuals Retirement Act" and to advise on the feasibility of the society sponsoring a retirement program under this legislation for the benefit of the members.

The House of Delegates adopted a resolution in May, 1960, which would allow this committee to negotiate with banking and insurance institutions to implement the provisions of any retirement benefit legislation if and when enacted by Congress. The president of the society would also be authorized to execute a trust agreement on behalf of the society with the banking and insurance institutions.

During 1960 the Keogh Bill (H. R. 10) was not passed by Congress. A new bill was introduced on the first day of Congress this

year which incorporates some of the provisions of the previous bill but has been changed in other ways. As far as the individual physician is concerned these changes are not substantial.

In May, 1960, the committee presented a prototype of a retirement program which could be sponsored by our medical society. This program would allow 2 avenues for investment for retirement purposes, namely: participation in a common trust fund and purchasing of guaranteed annuities, and would make available the substantial added benefits of a group operation.

There has been a considerable amount of conferring with banking and insurance institutions and the committee has arrived at the point where agreements which are most advantageous to the membership may be completed with a bank and insurance company to operate the retirement program.

The committee is not authorized to negotiate a final contract with these institutions until the legislation has been enacted. However, letters of intent may be given to the participating institutions so that they can begin to organize and promote the plan if and when legislation is enacted.

At the present time no further action is necessary by the House of Delegates. The next step in the program will have to be the enactment of permissive legislation by the Congress. When this event occurs the committee will take action to follow through on the proposal.

Respectively submitted,
Jesse Caldwell, M. D., Chairman

NORTH CAROLINA BOARD OF MEDICAL EXAMINERS STATISTICS

November 1, 1959 - October 31, 1960

Total number applicants granted	
license	339
By written examination	204
By endorsement of credentials	135
Limited License	79
Hospital residents	55
County or counties	9
State Institutions	9
Hospitals	5

State Board of Health	1
Limited license converted to full license	10
Special Limited	50
Hospital residents	30
Postgraduate foreign exchange residents	17
Staff state institutions	3
Written Examination Failure	7
Part I	0
Part II	7
Applicants rejected license by endorsement	2
Did not meet requirements of the Board	
Applicants declined permission to take written examination	0
Hearings	21
Irregularities in another state	1
Revocation of license in another state	2
Convicted Superior Court for criminal abortion	2
Dishonorable and unprofessional conduct, alcoholism and narcotic addition	1
Dishonorable and unprofessional conduct, narcoatic addiction and conviction in Superior Court for violation of narcotic laws	1
Petition for reinstatement medical license	2
Petition recommend reinstate- ment narcotic tax stamp	1
Narcotic irregularities	8
Narcotic addiction	3
Investigation State Bureau of Investigation	2
Narcotic irregularities	
License to practice medicine revoked	3
Convicted Superior Court for criminal abortion	2
Terms of suspension violated	1
License revoked, judgment suspended	2
Dishonorable and unprofessional conduct, alcoholism, narcotic addiction	1
Dishonorable and unprofessional conduct, narcotic addiction and conviction Superior Court for violation of narcotic laws	1
Placed on probation	4

License revoked in another state ...	2
License revoked, judgment suspended	2
Narcotic tax stamps surrendered	4
Narcotic irregularities	2
Narcotic addiction	2
Declined reinstatement of medical license	4
Declined to recommend reinstatement or narcotic tax stamp	2

**REPORT OF THE ACTIVITIES OF THE
NORTH CAROLINA MEDICAL CARE
COMMISSION
FOR THE YEAR ENDED
DECEMBER 31, 1960**

*Submitted by Physician Members
Representing the Medical Society on
The North Carolina Medical Care
Commission
Construction of Hospitals and Medical
Facilities*

The Commission has approved contributions involving Federal, State and local funds in a total of 336 medical facilities projects involving total encumbrances of approximately \$164 million, of which 41.2 per cent represents the Federal share; 11.2 per cent the State share and 47.6 per cent, the local share. The projects by medical type are listed as follows:

General Hospitals	169	(8,340 beds)
T. B. Hospitals	2	(100 beds)
Mental Hospitals	7	(647 beds)
Chronic Disease Facilities	5	(351 beds)
Rehabilitation Facilities	6	(130 beds)
Outpatient Departments	12	
Health Centers	84	
Nurses' Residences	47	(2,691 beds)
Nursing Homes	4	(243 beds)

In all, the Commission has constructed 58 new hospitals. Of the above projects, 273 have been completed, 42 are under construction and 21 are in the planning stage. There are currently under development 63 active projects involving a total cost of about \$61 million.

The total general hospital beds per thousand has increased from 2.5 beds in 1947 to 3.8 in 1960. The number of general hospital beds since 1947 has increased 90 per cent and the number of acceptable (modern and

safe) beds has increased 265 per cent; while the number of obsolete beds has decreased 39 per cent during this period.

The continuing increase in the State's population and utilization of hospital facilities together with the constant depreciation of existing buildings and equipment will require not only a continuation of the construction program but marked acceleration in the next several years. In 1947 the percentage of occupancy averaged 72 per cent of capacity. During 1959, the average percentage of occupancy was about 74 per cent. The increasing emphasis upon facilities for the long-term or chronically ill patient is demanding special attention and higher priority on the Commission's funds is to be expected. During the past year, several hospitals have undertaken sponsorship of nursing homes or long-term care facilities operated in conjunction with their acute general programs. Valdeese General Hospital at Valdeese is an example of where a new 100-bed hospital developed with Commission grants is also receiving Federal contributions toward the construction of a nursing or convalescent unit containing some 30 beds that will be coordinated with the hospital plant and located on the same site. The Duplin General Hospital at Kenansville is inaugurating a similar program.

Licensure of Hospitals and Nursing Homes

During the year, 167 hospitals were licensed by the Commission, representing 16,810 beds. There are now 37 facilities licensed as nursing homes, providing about 1,200 beds. Of the 37 nursing homes licensed, 70 per cent employ registered graduate nurses.

Hospitalization of the Medically Indigent

This program provides contributions to hospitals of \$1.50 per day for each medically indigent patient certified by the welfare departments. Based on the fiscal year ended June 30, 1960, there were a total of 19,253 claims paid under this program, representing a total of \$296,049.50. For this period, claims were paid for a total of 197,366 days of care. The average payment per claim was \$15.38, which represented an average length of stay of 10.2 days per patient discharged. A total of 144 hospitals received payments under

this program.

For the 1955-1957 biennium, the average length of stay per claim was 11.1 days. For the 1957-1959 biennium, the average length of stay was 10.7 days.

Student Loan Programs

Since 1945, 252 applicants have been approved for either loans or scholarships. Under the plan of attracting physicians and paramedical specialists to rural areas, 211 applicants have been approved. Of this number, 60 are in practice, 10 have completed their practice obligations, 74 are enrolled in school, 29 are either in internship or in military service, 13 withdrew from school, 15 experienced academic failures and 1 is deceased. Of the 211 applicants approved under the rural plan, 113 were students of medicine, 52 of dentistry, 18 of pharmacy and 28 of nursing.

Under the plan to provide personnel for the State-owned mental hospitals, 41 applicants have been approved, representing 11 in practice, 18 in school and 9 in internship or military service. Of the 41 applicants approved, 22 have been students of medicine, 5 of nursing and 14 of social work.

Of the 252 totally approved applicants, 71 are in practice. There have been 12 who defaulted on their practice obligation, representing 4.7 per cent.

The recommendations of the Advisory Budget Commission as released early in February, 1961, contain \$50,000 in funds for the Medical Care Commission to inaugurate a new scholarship program separate and apart from the above. This new plan would provide scholarships for graduate nurses who would obtain additional academic training upon the condition that they return to a hospital school of nursing within the State as an instructor. The design of this plan is to improve the quality of instruction in the hospital schools of nursing.

Expected Modification of the Commission's Activities

As this report is being prepared, there is a bill under consideration by the General Assembly which would transfer from the Medical Care Commission and the State Board of Public Welfare authority for licensing nursing homes to the State Board

of Health. This legislation is designed to: (1) Eliminate overlapping in inspections by the three agencies concerned and (2) permit the State Board of Health to use special Federal funds available to that department for the improvement of the quality of care in nursing homes and related facilities.

Another bill would transfer from the Medical Care Commission to the State Board of Public Welfare funds for the hospitalization of the medically indigent. It is understood this proposal will enable the State to obtain matching Federal funds for certain categories of medically indigent persons who do not qualify for welfare assistance payments but who might be eligible for Federally supported hospitalization payments.

In view of the growing enormity and complexity of the hospital construction program and the need to apply its resources to this primary activity, the Commission has not objected to the above proposals.

Respectfully submitted,
J. Street Brewer, M. D.
Powell G. Fox, M. D.
Harry L. Johnson, M. D.

**REPORT FROM HOSPITAL SAVING
ASSOCIATION
TO
HOUSE OF DELEGATES
MEDICAL SOCIETY OF THE STATE OF
NORTH CAROLINA**

E. MCG. HEDGPETH, M. D.,
Medical Director

1960 marks the 25th year of operation for Hospital Saving Association. A silver anniversary is a significant milestone, and I hope I may be forgiven for a short review of the Association's history before reporting current progress and the Association's hopes and plans for the future. The Articles of Incorporation of Hospital Saving Association were filed with the Secretary of State of North Carolina on March 11, 1935. Three of the Incorporators were physicians - Dr. I. H. Manning, Dr. P. P. McCain and Dr. L. B. McBrayer. A \$25,000 grant from the Duke Endowment provided the working capital for the new Association. This \$25,000 investment has since resulted in payment of \$126,904,988 to North Carolina hospitals and doc-

tors over the 25 year period. In 1960 alone, the Association paid \$16,444,860 on behalf of its subscribers and under programs which the Association administers.

The original business was confined to coverage for hospital services only. In 1941, Dr. Isaac Manning, the Association's first President and Medical Director, requested and secured permission from the House of Delegates of the Medical Society to add benefits for professional services. In 1946, the Association was represented by Mr. E. B. Crawford at a meeting in the offices of the American Medical Association in Chicago to organize National Blue Shield. The Association was thus one of the original non-profit prepaid health corporations to be granted Blue Shield approval and has since this time vigorously supported the traditions and ethics of medicine in support of private practice under policies endorsed by the American Medical Association and the Medical Society of the State of North Carolina.

The Association and the Medical Society have jointly made the Blue Shield emblem something of value and significance, so that it is now simulated and coveted by other companies. Hospital Saving Association, a legally constituted corporation licensed under Chapter 57 of the General Statutes of North Carolina, has been able to perform as the North Carolina Blue Shield Plan since 1946 when Blue Shield was formed.

The Statement of Understanding between the Society and Hospital Saving Association has given the Society complete control over the medical practices it needs in meeting the challenge of good medicine for the people of the State. At the same time the legal entity of Hospital Saving Association has proven of inestimable value to the Medical Society of the State of North Carolina as it has been responsible for the thousands of dollars of expenses in promoting, selling and administering the program set up by the Society many years ago and all the subsequent changes which have been necessary to cope with changing medical procedures and practices. This has been no easy job and the Society is greatly indebted to Hospital Saving Association for its part in the development of the great value of Blue Shield

to date. This has required untiring efforts of the Trustees, both medical and lay, and certainly the dedication of the entire operating personnel who have been responsible for the Association's performance.

We can be proud that the partnership of Blue Shield and the medical profession has elevated the standard of prepaid health insurance. Surely this has played a part in the fact that our country is now almost an island of higher health standards preserving the dignity of individual effort and self-determination, even though surrounded by a world of lower health standards and medicine practiced under state socialism.

The 1960 figures are as follows:

Total Assets	\$ 8,683,272
Legal and	
Operating Reserves	\$ 4,428,463
Total Fee Income	\$15,817,704
Operating Expense—	
% fee income	9.30 %
Total Claims Paid - all programs	
administered by HSA	\$16,444,860*
Blue Shield Participants	544,104
Blue Shield Claims Paid -	
Number	97,146
Amounts	\$ 2,907,240
Blue Cross Participants	544,846
Blue Cross - Claims Paid	
Number (IP)	80,582
Amounts (IP)	\$ 9,930,043
Days Paid	514,182
Average Stay	6.38
Average Per Case	\$ 123.23
Admissions Per 1,000	155
National BC Admission Rate	139

* Blue Cross-Blue Shield claims paid in 1960 amounted to \$1,194,388 more than in 1959. In addition to Blue Cross and Blue Shield payments, the Association paid benefits of \$3,607,577 under various other programs such as administered accounts, Medicare, and catastrophic Riders.

Hospital costs have continued to increase. The average per case payment increased from \$111.63 in 1959 to \$123.23 in 1960. The length of stay increased .3 of a day. An offsetting and favorable factor was the incidence of admission decreased in 1960.

I think we can be assured that the work of the Medical Society's Blue Shield Com-

mittee, and the Association in pointing out to physicians and hospitals the vital necessity of eliminating unnecessary hospital admissions and services has had some effect. The Association's policy of charging a lower rate to subscribers and groups in counties with a favorable incidence of admission has undoubtedly also been a factor in this development.

The Trustees of Hospital Saving Association are grateful to the Blue Shield Committee of the Medical Society. This Committee under the Chairmanship of Dr. Jacob H. Shuford, and under the prerogatives reserved to this Committee, has revised scheduled allowances as needed and adjudicated doubtful or difficult claims. The Committee's 1960 project to appoint one physician in each County Medical Society as the liaison between the Blue Shield Committee and County Medical Society membership has developed nicely. We are confident that this will in time overcome the difficulty of communication and liaison in a widespread state such as North Carolina.

The Blue Shield Committee reports several of its recent meetings with representatives from the Specialties of General Practice, Pediatrics, and Internal Medicine seeking ways and means of revising and broadening the scope of non-surgical coverage. I understand this important work has been completed and the Association will endeavor to implement this broader coverage in 1961.

The Association made excellent progress in enrollment of new members, both in industry and with rural groups and non-group members. The older and somewhat inadequate surgical coverages are being rapidly eliminated and converted to more modern coverage.

The Association provided "Extended Benefits" coverage for approximately 90,000 people at the close of 1960. The sale of this coverage is accelerating rapidly and we hope and expect that this sound and comprehensive type of catastrophic coverage will in future years become a basic part of Blue Cross and Blue Shield coverage. Extended Benefits provides not only for prolonged and expensive illness of a catastrophic nature but also for outpatient x-rays, laboratory tests,

office and home visits and home nursing following hospitalization, prescription drugs, shock therapy, etc.

Dr. L. L. Klostermyer, who replaced Dr. John S. Rhodes on the Board of Trustees in 1960, has proven himself to be an informed and able Trustee. Dr. V. K. Hart, Dr. Karl B. Pace, Dr. L. L. Klostermyer, and I have attempted to faithfully represent the Medical Society of the State of North Carolina and have regularly attended meetings of the Association. As Trustees representing the medical profession and the citizens of North Carolina, we are most pleased to be able to give you this report of sound growth and economic progress.

Respectfully submitted,
E. McG. Hedgpeth, M. D.,
Medical Director
Hospital Saving Association

REPORT FROM THE HOSPITAL CARE ASSOCIATION TO THE HOUSE OF DELEGATES OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA

As your representatives to the Board of Directors of the Hospital Care Association, we regularly attended meetings of the Board at the home office of the Association in Durham on the fourth Tuesday of each month. At least three of the four physician Directors elected by the Medical Society to the Hospital Care Board were present at each meeting.

We are glad to report that 1960 was another year of outstanding progress for the Hospital Care Association. In every area of its business the Association moved forward. This report will summarize the highlights of the Association's progress during the year.

Enrollment

As of December 31, 1960, the total enrollment in the Association was 359,815 members, representing an increase of 17,006 new members over the previous year. This was a gain of 5.0 in enrollment for the year. Increases were shown in both group and non-group enrollment.

Significantly, 336,051 of all Hospital Care members have both hospitalization and sur-

gical benefits. Many also have in-hospital medical benefits, Extended Benefits, Major Medical, or Dread Disease Endorsements.

Senior Citizen Plan

Enrollment in the Senior Citizen Plan, which Hospital Care introduced in 1959, almost doubled in 1960. This plan gives North Carolinians 65 and over and in reasonably good health an opportunity to obtain Blue Cross hospital, surgical and medical protection on a nongroup basis for \$6 a month.

Rural Program Expanded

With the cooperation of the North Carolina Farm Bureau in the Eastern and Piedmont Sections of the State, and the Farmers Federation Cooperative in Western North Carolina, the rural enrollment program pioneered in North Carolina by Hospital Care in 1953 was expanded. Almost 50,000 rural people throughout the state are now enrolled in this program.

The mobile enrollment office which Hospital Care inaugurated in 1959 continued to visit the smaller, rural communities of the state offering local citizens not affiliated with organized rural groups an opportunity to join Blue Cross on an individual family plan. Fifty-seven communities in 35 different counties were visited by this mobile enrollment office during the year.

Benefit Payments

Payments to physicians and hospitals during the year amounted to \$8,926,455.06. This represents an increase of 9.6 per cent over 1959 payments.

The total amount paid by the Hospital Care Association to hospitals and physicians since it was chartered in 1933 now approaches \$65,000,000. Payments in 1961 to hospitals and physicians will be approximately \$10,000,000.

Approximately one out of every three families with Hospital Care had a hospital or surgical bill paid in 1960.

Claims paid by the Association in 1960 included in-patient hospital benefits, out-patient hospital benefits, physician anesthetists, surgical claims in the hospital, surgical claims in the hospital out-patient department or the physician's office, physicians in-hospital medical services, out-patient x-ray and lab services, Major Medical, Extended Bene-

fits, and Dread Disease benefits and ambulance service.

All told, Hospital Care Association paid 132,465 claims during the year, for an average of 2,547 claims per week.

Increased enrollment and higher hospital costs were primarily responsible for the record benefits paid by the Association during the year. As hospital charges continued to increase, Hospital Care benefits were increased accordingly.

The Association's executive vice president, Mr. E. M. Herndon, in his annual report to the Board of Directors, noted that most hospitals and doctors in the state continued to give Blue Cross excellent support.

He expressed the feeling that doctors and hospitals are becoming increasingly aware of the importance of voluntary prepayment in making their services available to the public.

New Benefits Added

The Association continued to increase its schedule of benefits and broaden its scope of service. Increases in benefits in all endorsements in the Catastrophic illness category have been approved at no extra cost to the members, and are now being made effective.

Basic hospital benefits were extended to cover admissions for dental care.

New Endorsements covering oral surgery and out-patient accident cases in a physicians office were made available.

Range of Services

The range of services now offered by the Association is as follows:

- a. A Comprehensive certificate on a bed and board allowance up to \$20 a day, with certificates providing either 70, 120, or 365 days of care per confinement.
- b. Five surgical schedules ranging up to a \$300 maximum (97 per cent of all members have both hospital and surgical benefits).
- c. Hospital-medical program of benefits covering a full schedule of in-hospital medical payments.
- d. Endorsements to basic certificates which include guarantee of semi-private accommodations, out-patient x-ray and laboratory, oral surgery, out-patient care in physi-

cians' offices, extended benefits and major medical (\$10,000 maximum) and dread disease (\$7,500 maximum).

Financial Condition

The financial condition of the Association as of December 31, 1960, was as follows:

Assets	\$6,343,383.37
Liabilities	\$2,746,401.30
Reserve	\$3,596,982.07

The reserve fund is adequate to meet the financial requirements of the national Blue Cross Association and the North Carolina Department of Insurance.

New Blue Cross Building

Plans were being drawn at the end of the year for a new Hospital Care home office building needed to provide more work space to take care of expanding enrollment and anticipated future growth. The Association purchased land for the building in 1959. Comprising approximately 5½ acres, the property is located in a residential area at the intersection of South Duke Street and Morehead Avenue, a few blocks from downtown Durham. A new two-story home office building will be built on the site beginning in March of 1961. The building will have around 30,000 square feet of floor space compared with around 17,500 square feet which the Association has in its present building on West Geer Street.

The razing of two old houses located on the site was started in late December.

Plans for Improved Operation

1. The Association is preparing to install an IBM 1401 electronic computer in 1962. This computer will speed up claims processing, billing, accounting, and statistical reporting.

National Growth

The Blue Cross program continued to grow nationally. The 82 approved Blue Cross Plans in the United States and Canada ended 1960 with a combined enrollment of nearly 58 million for a net gain of over 1,400,000 new members for the year. This was three times more new members than were enrolled the previous year.

Blue Shield Approval

Here, in chronological order are the steps that have been taken to date in an effort to secure Blue Shield approval for the Hospital

Care Association:

In May 1958 the House of Delegates of the Medical Society voted to approve the Hospital Care Association as a Blue Shield Plan on the same terms and basis with the Hospital Saving Association. The Association was subsequently advised by the Medical Society that in order to be granted Blue Shield approval the four public representatives on its Board must be elected by the eight other members of the Board, which include four hospital representatives and four physicians elected by the Medical Society.

The Board of Directors of the Hospital Care Association at first declined to make this change in its Board structure. However, the Board reconsidered its position in December 1959 and voted to make the change in its method of electing public representatives as requested by the Medical Society.

The Executive Committee in January 1960 fully approved Hospital Care Association as a Blue Shield Plan and administrator for the Doctors Program in North Carolina, on exactly the same terms and conditions as the Hospital Saving Association of Chapel Hill.

Following this action by the Executive Committee, Hospital Care Association made formal application to the Blue Shield Medical Care Plans, Chicago, for full approval as a Blue Shield Plan. Approval of the Association's application was not granted at the annual meeting of Blue Shield Plans in California in April 1960. The application was referred to the Membership and Technical Assistance Committee for further study, and a report was to be made back to the Board of Directors of the National Blue Shield Plans.

Immediately following this meeting Dr. Donald Stubbs, at that time President of the National Association of Blue Shield Plans, suggested to the Hospital Care Association physician Directors in Los Angeles that the Medical Society set up its own Blue Shield corporation in North Carolina and apply for approval, which would be granted. Upon such approval the Medical Society's corporation would control Blue Shield in North Car-

olina and be authorized to appoint as its agents the two Blue Cross Plans in North Carolina.

Dr. Stubbs met with the Executive Council of the Medical Society in May 1960, at their request, and discussed this matter. The following day he spoke to this point at the House of Delegates meeting. The Medical Society took action to implement this plan by appointing an ad hoc committee to explore the possibility and feasibility of such a separate corporation, and make its report back to the Executive Council. No final report has yet been made by the ad hoc committee. The Hospital Care Association awaits final action by the Medical Society, which will no doubt be forthcoming when the report of the ad hoc committee has been made and considered.

The Hospital Care Association believes its operation as a fully approved Blue Shield Plan would increase its scope of service to its present membership of 360,000 persons and facilitate future enrollment efforts.

We are convinced that the Hospital Care Association is endeavoring to provide the people of our state with what they want, need, and can afford in health service protection. The Association is continuing to work toward expansion of benefits and is ever seeking ways and means to get these benefits to the uncovered segments of our population - the unemployed, the aged, and the medically indigent.

We have enjoyed attending the monthly meetings of the Board of Directors in Durham during the past year. We have carefully studied the operating procedures of the Association and we feel the Plan is well directed by its Board and is efficiently operated by its executive staff.

We feel that Hospital Care Association is making a substantial contribution toward our mutual objective of providing the people of this state with a superior health care program on a voluntary basis without government participation. It is a service organization worthy of the high regard in which it is held throughout the state.

Respectively submitted
J. Street Brewer, M. D., Chairman
Alfred T. Hamilton, M. D.

Willard C. Goley, M. D.
Charles T. Wilkinson, M. D.

REPORT ON ACTIONS OF THE HOUSE OF DELEGATES

AMERICAN MEDICAL ASSOCIATION

One Hundred Ninth Annual Meeting

June 13-17, 1960

Miami Beach

Health care for the aged, pharmaceutical issues, occupational health programs, relations with allied health groups, and relations with the National Foundation were among the major subjects involved in policy actions by the House of Delegates at the American Medical Association's One Hundred Ninth annual meeting held June 13-17 in Miami Beach.

Dr. Leonard W. Larson of Bismarck, North Dakota, former chairman of the A. M. A. Board of Trustees and of the A. M. A. Commission on Medical Care Plans, was named president-elect by unanimous vote. Dr. Larson will succeed Dr. E. Vincent Askey of Los Angeles as president at the Association's annual meeting in June, 1961, at New York City.

The A. M. A. 1960 Distinguished Service Award, one of medicine's highest honors, was given to Dr. Charles A. Doan, who will retire next year as dean of the Ohio State University College of Medicine and director of the Health Center in Columbus, Ohio.

Total registration through Thursday, with half a day of the meeting still remaining, had reached 19,107, including 8,706 physicians.

Health Care For The Aged

After considering a variety of reports, resolutions and comments on the subject of health care for the aged, the House of Delegates adopted the following statement as official policy of the American Medical Association:

Personal medical care is primarily the responsibility of the individual. When he is unable to provide this care for himself, the responsibility should properly pass to his family, the community, the county, the state, and only when all these fail, to the federal government, and then only in conjunction with the other levels of government, in the above order. The determination of medical need should be made by a physician and the determination of eligibility should be made at the local level with local administration and control. The principle of freedom of choice

should be preserved. The use of tax funds under the above conditions to pay for such care, whether through the purchase of health insurance or by direct payment, provided local option is assured, is inherent in this concept and is not inconsistent with previous actions of the House of Delegates of the American Medical Association. The House also urged the Board of

Trustees "to initiate a nonpartisan open assembly to which all interested representative groups are invited for the purpose of developing the specifics of a sound approach to the health service and facilities needed by the aged, and that thereafter the American Medical Association present its findings and positive principles to the people."

In connection with an educational program regarding the aged, the House declared that "the American Medical Association increase its educational program regarding employment of those over 65, emphasizing voluntary, gradual and individual retirement, thereby giving these individuals not only the right to work but the right to live in a free society with dignity and pride."

Earlier, at the opening session, Dr. Louis M. Orr, retiring A. M. A. president, had asked the House to go on record favoring more jobs for the aged, voluntary retirement and a campaign against discrimination because of age, whether it be 40 or 65. The House also gave wholehearted approval to Dr. Askey's urging that state medical societies take an active part in state conferences and other planning activities preceding the January, 1961, White House Conference on Aging.

Pharmaceutical Issues

In the pharmaceutical area the House took two actions—one regarding mail order drug houses and the other involving the development and marketing of pharmaceutical products.

The House agreed with representatives of the pharmacy profession that the unorthodox practice of mail order filling of prescription drugs is not in the best interest of the patient, except where unavoidable because of geographic isolation of the patient. The statement pointed out that in this process the direct personal relationship, which exists between the patient-physician-phar-

macist at the community level and which is essential to the public health and the welfare of patients, is lost.

The House also directed the Board of Trustees to request the Council on Drugs and other appropriate Association councils and committees "to study the pharmaceutical field in its relationship to medicine and the public, to correlate available material, and after consultation with the several branches of clinical medicine, clinical research, and medical education and other interested groups or agencies, submit an objective appraisal to the House of Delegates in June, 1961." The statement pointed out that certain proposals have been made which, if carried out, might impair the future of pharmaceutical research and development, thus retarding the progress of scientific therapy. It also said that the services of the pharmaceutical industry are so vital to the public and to the medical profession that an objective study should be made.

Occupational Health Programs

The House approved a revised statement on the "Scope, Objectives and Functions of Occupational Health Programs," which was originally adopted in June, 1957. The new statement contains no fundamental alterations in A. M. A. policy or ethical relationships, but it adds important new material on the following points:

1. Greater emphasis on the preventive and health maintenance concepts of occupational health programs.
2. A more positive statement of organized medicine's obligation to provide leadership in improving occupational health services by part-time physicians in small industry.
3. Increased emphasis on rehabilitation of the occupationally ill and injured.
4. Inclusion of the proper use of immunization procedures for employees, as approved by the House in 1959.
5. A more adequate statement on the need for teamwork with lay industrial hygienists in tailoring each occupational health program to the particular employee group involved.

In approving the revised guides for oc-

cupational health programs, the House also accepted a suggestion that the A. M. A. Council on Occupational Health undertake a project to study and encourage the employment of the physically handicapped.

Allied Health Groups

The House approved the final report of the Committee to Study the Relationships of Medicine with Allied Health Professions and Services and commended it as "a monumental work." The report covers the present situation, future implications and recommendations, including guiding principles and approaches to activate physician leadership. The House strongly recommended that A. M. A. activity in this vitally important area be continued, and it approved the appointment of a Board of Trustees committee to carry on the work.

To develop physician leadership in promoting cooperative efforts with allied health professions and services, the report suggested the following A. M. A. activities.

1. A general conference should be held with allied scientists in the basic medical sciences and related disciplines for discussion of matters of common concern related to the creation of permanent, cooperative activities.
2. Specific exploratory conferences should be held with members of segments of science allied to a given area of medical practice with the national medical organizations concerned.
3. General and specific conferences should be held with professional and technical assistants on education, recruitment, and coordination of contributions.
4. Through meetings and publications, reciprocal exchange of information should be provided between physicians and allied scientists and members of health professions.
5. Effective, continuing liaison should be established between A. M. A. representatives and professional and technical personnel.

National Foundation

The House took two actions involving relations between the medical profession and the National Foundation. It adopted a statement of policies for the guidance of state

medical associations and recommended that they be adopted by all component medical societies. These policies cover such subjects as membership of medical advisory committees, and basic principles concerning financial assistance for medical care, payment for physicians' services and physicians' responsibilities for constructive leadership in medical advisory activities.

In another action the House directed the Board of Trustees to authorize further conferences with leaders in the National Foundation on the problem of poliomyelitis as it relates to the betterment of the public health and to consider further joint action toward the eradication of polio. The House commended the National Foundation for its outstanding service in the attack against polio, but pointed out that much work remains to be done in public education, vaccination, continuing assistance for polio victims, and research.

Miscellaneous Actions

In dealing with reports and resolutions on a wide variety of other subjects, the House also:

Strongly reaffirmed its support of the *Blue Shield concept* in voluntary health insurance and approved specific recommendations concerning A. M. A.—Blue Shield relationships;

Approved a contingent appointment of not more than six months for *foreign medical school graduates* who have been accepted for the September, 1960, qualification examination;

Agreed that the American Medical Association should sponsor a *second National Congress on prepaid health insurance*;

Approved a Board of Trustees request to the Postmaster General for a stamp commemorating the *Mayo Brothers*;

Decided that the establishment of a home for *aged and retired physicians* is not warranted at this time.

Approved the establishment of a new "*Scientific Achievement Award*" to be given to a non-physician scientist on special occasions for outstanding work;

Approved the following schedule for future *annual meetings*: Atlantic City, 1963; San Francisco, 1964, and New York City,

1965;

Approved the objectives of the A. M. A. *Commission on the Cost of Medical Care* established by the Board of Trustees and headed by Dr. Louis M. Orr, immediate past president of the Association;

Urged individual members of the Association to take a greater interest and more active part in *public affairs* on all levels;

Reaffirmed its opposition to compulsory inclusion of physicians under Title II of the *Social Security Act* and recommended immediate action by all A. M. A. members who agree with that position;

Called for a review of existing and proposed legislation pertaining to *food and color additives*, with the objection of supporting appropriate measures which are in the public interest;

Urged reform of the *federal tax structure* so as to return to the states and their political subdivisions, their traditional revenue sources;

Asked state and county medical societies to make greater use of A. M. A. *recruitment materials* in presenting medicine's story to the nation's high schools;

Requested the Board of Trustees to initiate a study of present policy regarding the required content and method of preparing *hospital records*;

Commended the Department of Defense and the Air Force for establishing and operating the *Aeromedical Transport Service* and urged that it be maintained at optimum efficiency;

Directed the Board of Trustees to develop *group annuity* and *group disability* insurance programs for Association members; and

Expressed grave concern over the indiscriminate use of *contact lenses*.

Addresses and Awards

Dr. Orr, in his final report to the House at the opening session, urged medical societies to "adopt" rural villages, cities, and regions in underdeveloped parts of the world and to send them medical, clinical, and hospital supplies.

Dr. Askey, in his inaugural address Tuesday night, declared that medicine faces its greatest challenge in the decade ahead,

adding that physicians must prove the effectiveness of medicine practiced in a free society. Dr. John S. Millis (Ph.D.), president of Western Reserve University, Cleveland, Ohio, and guest speaker at the inaugural ceremonies, said the human dilemma of the sixties is an increasing desire for security and authority with a diminishing desire for responsibility.

At the Wednesday session of the House, Dr. Askey urged intensified, accelerated effort in five areas — medical education, preparations for the White House Conference on Aging next January, health insurance and third party relationships, mental health, and membership relations.

The Goldberger Award in Nutrition was presented to Dr. Richard Vilter of the University of Cincinnati. The Boy Scouts of America, celebrating its golden jubilee, presented the A. M. A. with a citation in appreciation of the medical profession's help and support. Dr. B. E. Pickett of Carrizo Springs, Texas, retiring chairman of the Council on Constitution and Bylaws, received an award in recognition of his long service.

Election of Officers

In addition to Dr. Larson, the new president-elect, the following officers were named at the Thursday session:

Dr. William F. Costello of Dover, N. J., vice president; Dr. Norman A. Welch of Boston, re-elected speaker of the House and Dr. Milford O. Rouse of Dallas, Texas, re-elected vice speaker.

Dr. Gerald D. Dorman of New York City was elected to the Board of Trustees to succeed Dr. Larson, and Dr. James Z. Appel of Lancaster, Pennsylvania, was re-elected to the Board.

Elected to the Judicial Council, to succeed Dr. Louis A. Buie of Rochester, Minnesota, was Dr. James H. Berge of Seattle.

Named to the Council on Medical Education and Hospitals were Dr. William R. Willard of Lexington, Kentucky, succeeding Dr. James M. Faulkner of Cambridge, Massachusetts, and Dr. Harlan English of Danville, Illinois, who was re-elected.

On the Council on Medical Service, the

House re-elected Dr. Russell B. Roth of Erie, Pennsylvania, and Dr. Hoyt B. Woolley of Idaho Falls.

Dr. George D. Johnson of Spartanburg, S. C., was named to succeed Dr. Pickett on the Council on Constitution and Bylaws.

REPORT ON ACTIONS OF THE HOUSE OF DELEGATES, AMERICAN MEDICAL ASSOCIATION FOURTEENTH CLINICAL MEETING

November 28 - December 1

Washington, D. C.

A scholarship and loan program for medical students, the status of foreign medical graduates, an A.M.A. membership dues increase, the expansion of voluntary health insurance, health care for the aged, and new developments in polio vaccine were among the major subjects acted upon at the American Medical Association's Fourteenth Clinical Meeting held in Washington, D. C., November 28 - December 1.

Named as 1960 General Practitioner of the Year was 44 year old Dr. James T. Cook of Marianna, Florida, who was selected for his dedication to both medical practice and service to the community. Dr. Cook is the fourteenth recipient of the award.

Speaking at the Monday opening session, Dr. E. Vincent Askey of Los Angeles, A.M.A. President, called upon the delegates to support not only existing A.M.A. programs but also expansion of new programs necessary to meet the challenges of society. Dr. Askey assumed the new administration in Washington of cooperation whenever and wherever possible, but emphasized that the A.M.A. will not change its policies merely for the sake of conformity.

Total registration reached 8,170, made up of 3,940 physicians and 4,239 guests.

SCHOLARSHIP AND LOAN PROGRAM

The House of Delegates approved a scholarship and loan program proposed by the Special Study Committee of the Council on Medical Education and Hospitals, and also urged that there shall be local participation in the program at the state and county level. In commenting on the two-part program, the House approved the following statement by the reference committee:

This proposed program will provide concrete evidence of the American Medical Association's sincere desire to attract increasing numbers of well qualified young people to enlarge the ranks of our profession. Your reference committee recognizes that the program is wisely designed to allow for its enlargement through the support of individual physicians and other groups. Your reference committee was impressed with the enthusiastic support of this proposal indicated during the course of the discussion. There was indicated a desire that in the final formulation of the administrative details of this program, provision be made for widespread participation by individual physicians as well as county and state medical societies. The program will clearly assist in securing highly talented individuals whose ability and leadership in all areas of medicine will be fostered and at the same time will bring needed financial assistance on a broad basis to medical students under a system in keeping with this Association's belief in individual responsibility.

FOREIGN MEDICAL SCHOOL GRADUATES

Meeting the problem of foreign medical graduates, the House of Delegates adopted a report which included the following statements:

In order that those foreign physicians who have not yet been certified by the Educational Council for Foreign Medical Graduates might be given further opportunity to enhance their medical education, hospitals would be encouraged to develop special educational programs. Such programs must be of educational worth to the foreign graduate and must divorce him from any responsibility for patient care. Foreign physicians may participate in these programs until June 30, 1961, with approval of the Department of State so that their exchange visa will not be withdrawn before that time. This will also allow the non-certified foreign physician the opportunity to take the April, 1961, Educational Council for Foreign Medical Graduates examination.

A.M.A. DUES INCREASE

The House approved a Board of Trustee report which announced that a dues increase would be recommended at the annual meeting in June, 1961. The report indicated that the amount would be not less than \$10 and not more than \$25, to be effective January 1, 1962. The Reference Committee asked the Board to consider an increase in the annual dues of \$20.00, to be implemented over a period of two years: \$10.00 on January 1, 1962, and \$10.00 additional on January 1, 1963.

The House suggested that these funds be used to inaugurate or expand a number of

programs including:

1. Financial assistance to medical students.
2. Continuing education for practicing physicians.
3. Health advice to the lay public.
4. Medical research.
5. The expansion by the Communications Division of its program of faithfully portraying the image of the American Medical Association.

It is important, the House emphasized, that the Board of Trustees report recommending a dues increase be transmitted in essence to the grass roots level.

VOLUNTARY HEALTH INSURANCE

In place of a Board of Trustees report and three resolutions, the House adopted the following substitute resolutions:

Whereas, It has been widely recognized that voluntary health insurance is the primary alternative to a compulsory governmental program; and

Whereas, The public has shown its confidence in this voluntary system; and

Whereas, Current social, political and economic developments compel a new and revitalized effort to make voluntary health insurance successful; and

Whereas, The American Medical Association has consistently pledged itself to make available the highest type of medical care; therefore be it

Resolved, That the House of Delegates direct the Board of Trustees and the Council on Medical Service to assume immediately the leadership in consolidating the efforts of the American Medical Association with those of the National Association of Blue Shield Plans, the American Hospital Association and the Blue Cross Association into maximum development of the voluntary, non-profit prepayment concept to provide health care for the American people; and be it further

Resolved, That similar leadership be undertaken to coordinate the efforts of private insurance carriers through conferences with their national organizations; and be it further

Resolved, That, where feasible, efforts be made to cooperate with representatives of other types of medical care plans, other professional groups, and representatives of industry, labor and the public at large.

HEALTH CARE FOR THE AGED

The House reaffirmed the Association's support of the Kerr-Mills Bill, which was passed last summer, and its opposition to any legislation involving the use of the OASDI mechanism for medical aid to the aged. The delegates also urged all state and

local medical societies to cooperate with the appropriate state officials and provide leadership in implementing the provisions of the Kerr-Mills Bill.

In connection with health care for the aged, the House suggested further experimentation in home care programs, homemaker services, and visiting nurse services. The delegates also recommended an increased emphasis at all levels of medical education on the new challenges being presented to physicians in the health care of older persons.

POLIO VACCINE

The House agreed with a Board of Trustees report which said:

In view of the fact that oral polio vaccine will not be generally available in sufficient quantity in 1961 for any large scale immunizing effort, the Board of Trustees of the A.M.A. strongly recommends that the medical profession encourage the widest possible use of the Salk vaccine for the prevention of poliomyelitis. The Salk vaccine has been proved to be effective and since there are still many segments of the population not immunized against poliomyelitis every effort should be made to encourage the general public to take advantage of the Salk vaccine without delay.

The Board report was amended to suggest that a proper committee be established by the A.M.A. to study the problems involved in administration of the new oral polio vaccine and to establish guides for physicians to follow when they are approached by various groups and asked for their support in administering oral polio vaccine.

MISCELLANEOUS ACTION

In considering a wide variety of resolutions and annual and supplementary reports, the House also:

Approved continuing study and periodic re-evaluation of the trend toward locating *physician's offices* in or adjacent to hospitals;

Directed the Committee on Medical Care for Industrial Workers to carry out its duties as previously instructed and to prepare guides for physician relationships with *medical care plans* in conformity with the clear policies already laid down by the House of Delegates;

Approved a set of guides relating to drug expenditures for *welfare recipients*;

Asked the Board of Trustees to study the question of blood replacement responsibility and also the matter of establishing health insurance fee schedules for *surgical assistants*;

Urged the Board to make every effort to reduce the number of physicians who are non-dues-paying members and approved a three-year study report on the relationships of *physicians not in private practice* to organized medicine;

Requested the Board to present a completed *retirement* and *disability* insurance program for A.M.A. members at the June, 1961, meeting, and

Agreed that the General Practitioner of the Year Award should be continued as at present.

ELIAS S. FAISON, M.D.

CHAS. F. STROSNIDER, M.D.

MILLARD D. HILL, M.D.

REPORT OF EXECUTIVE COUNCIL MEETINGS

SPECIAL CALLED MEETING OF EXECUTIVE COUNCIL

Sunday, November 28, 1960

A Special Called Meeting of the Executive Council of the Medical Society of the State of North Carolina convened in the Crystal Room of the Carolina Hotel, Pinehurst, at two o'clock P. M., November 28, 1960, which was presided over by President Amos N. Johnson of Garland. A roll call by Secretary John S. Rhodes declared a quorum of fifteen present.

Dr. Amos Johnson: One of the first motions and recommendations by the Chronic Illness Committee which met this morning, as it was charged to do, to make recommendations to this Council was a motion made by Dr. Garvin and seconded by Dr. Flythe and passed unanimously:

"That the Committee reaffirm its stand for implementation of Public Law 86-778 and give aid and help to all agencies involved."

It has come to my attention and to the attention of some of you on the Council and others that there are areas of thought within the State that they want no part of implementing this bill whatsoever; so I think it would not be amiss to open the floor for discussion on, "Shall we participate in the implementation of this bill?" Let's get our home base off before we depart towards implementing it.

The floor is open for comments or discussion on reaffirming the action taken at Mid Pines in September.

(Discussion ensued.)

Dr. Johnson: Is there any other discussion pertinent to reaffirming the action of the Council to implement the Kerr-Mills Bill?

Does anyone care to make a motion?

Dr. Paschal: Mr. Chairman, I make a motion that we reaffirm the action of the Council at the previous, October 2, 1960, meeting.

Dr. Johnson: Do I hear a second?

Dr. Sams: I second the motion.

Dr. Johnson: It has been moved and sec-

onded. Is there discussion?

Dr. Squires: Motion was made and seconded that we follow this O.A.A. program through. Didn't Dr. Paschal make that motion?

Dr. Johnson: His motion was that we reaffirm the stand on the implementation of the Kerr-Mills Bill. That is the basic principle of it.

Dr. Beddingfield: Actually, this motion that we are about to vote on is actually a matter of form anyhow, because this thing is going to be implemented in North Carolina whether we are for or against it, as I understand it. Isn't that your understanding?

Dr. Johnson: That is very true, but it is a reaffirmation of are we going to attempt to go further in trying to work with it.

All who favor the motion, show it by raising your right hand; all opposed to the motion, like sign. No votes against, so it is carried unanimously.

Dr. Johnson: Now, the next problem is—and I think I will turn it around from the way we considered it in your Committee this morning, because we got off and considered the O.A.A. vendor payments first. Shall we accept vendor payments for professional services under this plan? You have heard it discussed—how it has been done under M.A.A., and maybe we had better go back, because this morning in the meeting here of the Chronic Illness Committee the next motion was made by Dr. McLaurin and seconded by Dr. Verdone, and it reads as follows:

"That the Committee go on record as favoring a change in the policy of the State Society to permit physicians at their discretion to accept vendor payments for O.A.A."

Now, the basic idea now is: Shall we accept for O.A.A. as well as M.A.A. vendor payments for professional services rendered?

Dr. Squires: I make a motion we do accept the vendor payments.

Dr. Wilkinson: I second the motion.

Dr. Sams: The O.A.A. and the M.A.A. be merged into one unit?

Dr. Johnson: No.

Dr. Sams: They will still be separate units?

Dr. Johnson: Dr. Sams, let me clarify your thinking on that. We got into the thing this morning talking first about the M.A.A. which is what we are here for now; and in the discussion of all of these things that were implemented in the various states that you see up there (referring to blackboard), we got off on the business of O.A.A. and they are accepting vendor payments there, so we got the cart a little before the horse this morning and first voted to accept O.A.A., and then in the next motion further down we voted to recommend to this Council the acceptance of vendor payments under similar terms for M.A.A. They are separate entities.

Dr. Poteat: Mr. President, may I make a point to clarify that maybe even more? It is conceivable that a person would be eligible for M.A.A. benefits who would not be eligible for O.A.A. benefits. In other words, a person may be able to go along, an individual, and take care of himself, pay his bills and fees, and clothe himself and house himself and get along all right without any public welfare assistance. That man then gets sick, and he is whipped; he has no recourse. That is the individual that this M.A.A. is designed to assist. The medically indigent.

Dr. Johnson: As pertains to M.A.A. vendor service, a motion has been made and seconded. Does anyone have any further discussion?

Dr. Raiford: Mr. President, shouldn't that be "request" vendor payments rather than "permit"? I mean shouldn't it be a little stronger than that?

Dr. Johnson: Does it read "permit"?

Dr. Raiford: Yes.

Dr. Johnson: "That the Committee go on record as favoring a change in the policy of the State Society to *permit* physicians at their discretion to accept vendor payments." That was the motion that was sent

to us as a recommendation from the Chronic Illness Committee.

This Council should make its own motion pertinent to this.

Dr. Raiford: As I understand, whatever action we take in line of recommendations or anything else, will be made to the legislative body to provide for legislation; and, if we just "permit" doctors to do it, I don't think they will take a very strong view of it, whereas, if we request forcefully that vendor payments be made for services rendered—I think it should be made a little stronger.

Dr. Johnson: You've got a point there. What was your motion, Dr. Squires?

Dr. Squires: You suggested a motion that we approve the vendor payments as outlined by the Committee that met this morning.

Dr. Johnson: Where does that fit in with the motion you wanted? Would you like to make another motion?

Dr. Raiford: I would like to make a substitute motion that we "request" that vendor payments for services performed be made under the M.A.A.

Dr. Squires: Mr. President, I withdraw my motion then.

Dr. Johnson: Dr. Wilkinson, do you accept the withdrawal?

Dr. Wilkinson: Yes.

Dr. Johnson: Does anyone second Dr. Raiford's motion?

Dr. Sams: I second the motion.

Dr. Johnson: Is there any further discussion?

Dr. Johnson: All those in favor of vendor payments for M.A.A. raise your right hand; all opposed, similar sign. It is unanimous.

Dr. Johnson: Now, let us go back and discuss a little more thoroughly and give mature consideration to the proposition of vendor payments for O.A.A.

Dr. Johnson: Does anyone care to make a motion as to what we do with the recommendation from the Chronic Illness Committee — it was a unanimous recommendation from them—that we participate in vendor

payment service for O.A.A. I'd like to have a motion yea or nay.

Dr. Rhodes: I so move.

Dr. Johnson: Is there a second to that motion?

Dr. Beddingfield: I second the motion.

Dr. Johnson: It has been moved and seconded that we operate on a vendor payment basis for O.A.A. similar to that which we have just approved for M.A.A.

Is there any discussion?

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Dr. Johnson: Is there further organized discussion on this? If not, all in favor raise your right hand; all opposed, same sign. The motion is carried.

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Dr. Johnson: Now, we were asked to list priorities and ground rules under which we would cooperate with this program, and I am going to ask Dr. Beddingfield if he will discuss it. We are going to take off here on something that can be considered and from this we hope to come up with a list of priorities, and Dr. Beddingfield has given some thought to this problem. Priority 1 was vendor payments to hospitals. Now, Dr. Beddingfield, do you want to talk a minute to that?

(Presentation and discussion ensued.)

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Dr. Johnson: You have heard the general discussion of priorities. The Chronic Illness Committee has brought forth a recommendation to us for priorities. We have a member of this Committee here who has a report to make to us. Dr. McLaurin.

(Presentation and discussion ensued.)

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Dr. Johnson: They had a motion this morning that was pertinent to the institutional phase of the priority. The motion was made by Dr. McLaurin and seconded by Dr. Nichols:

"That we include as the first priority institutional care on a per diem basis."

It was thought better that we leave the figure out. Presently it will be \$12.00, but that is something that will be on a sliding basis, and that was passed by the Committee. I think we should take that up at the present

time. Do I hear a motion or any discussion on that? That is a necessity; that is a requirement of the program. Do I hear a motion on that?

Dr. Beddingfield: I move that we endorse the institutional phase of it as Priority 1.

Dr. Johnson: Is there a second?

Dr. Harry L. Johnson: I second the motion.

Dr. Johnson: Discussion?

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Dr. Johnson: All in favor of this raise your hand; opposed, the same. The motion is carried.

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Dr. Johnson: Now, next we come to "equal priority." Office visits—do you have some recommendation as to fees, Dr. McLaurin?

Dr. McLaurin: Yes, we have a general recommendation which covers that:

"It is the recommendation of the Committee to the Executive Council that a uniform fee be accepted and adopted by the Medical Society for office and home visits (a suggested basis is \$3.00 for office and \$5.00 for home visit) for patients on M.A.A. program. Consideration should be given to adjusted fee charges as to day or night and distance traveled and to undue detention or prolonged detention on a call.

"We further recommend that these figures be approved by the Society before final adoption."

Dr. Beddingfield: I wonder if it isn't out of order to discuss vendor payments to physicians and accept these people as medically indigent before we establish some level of medical indigency that we agree upon?

Dr. Johnson: We can stop here and discuss the means test or what we desire to require.

Dr. Beddingfield: I mean it seems to me that that would be the logical sequence.

Dr. Johnson: Have you all gone into that yet?

Dr. McLaurin: They are doing that presently.

Dr. Johnson: You see, the reason for getting on to this is that their Committee has not done it yet. We can come back and fix this if we want to. Some of this we can

handle, but they are working on that presently.

Dr. Beddingfield: The reason I said that is that in my discussion with physicians in the Fourth District, this was the question when we went over these proposed fee schedules: They said, "What kind of people is this for and how are you going to determine?" That seemed to be the logical sequence of reasoning. Certainly all of us have probably a different definition for medical indigence.

Dr. Johnson: I am sure that the idea I had two or three or four years ago, when Dr. Raney Stanford and some of his group were continuously talking about doing something to help the medically indigent, never encompassed such comprehensive care for them as we have proposed here.

Is it the will of his Committee that we go ahead and work with some of these things, subject to reconsideration, while we wait for a recommendation from the Chronic Illness Committee?

Dr. Beddingfield: Yes.

Dr. Johnson: The recommendation has been brought up that for office calls the fee be set at \$3.00. Do I hear any discussion on that? I think that the number of calls is going to be set by the administering body. I don't know whether we will have a voice in that particularly or not; it will be dependent upon the amount of money allocated along this line. I don't think that we can here set the exact number of calls that will be paid for before you have to justify it with a letter to get approval for more calls.

Dr. McLaurin: Dr. Johnson, may I say something? We considered this at length, and it was our feeling that in general what Dr. Beddingfield had written would be proper for office visits. Have you considered our recommendation that a co-insurance provision be included in this?

Dr. Johnson: No. That is something we could consider now while we are waiting.

Dr. McLaurin: I don't have the final wording, although I can get it if you like; but we were considering two suggestions, we finally have down as our recommendation to you: That there be two things considered on co-insurance basis. (1) Non-institutional cov-

erage excluding drugs. (2) Institutional coverage. So that a person would become eligible after personally paid charges of \$75.00 or so, if that amount of institutional care had been reached; and for non-institutional care if a figure of \$25.00 had been reached, this is excluding drug charges.

On that basis, accepting the co-insurance of some sort, it was our feeling that we didn't have to decide whether we'd start the payment with the first visit, the third visit, or more. That was the recommendation.

Dr. Beddingfield: Why do you exclude drugs from co-insurance?

Dr. McLaurin: For the reason it is a continuing monthly expense. These patients have \$5.00, \$10.00, or \$15.00 a month and are paid on a separate basis for those. We did not make a definite recommendation as to the figure, because again we feel we are getting into the area of another group, a paramedical agency represented by pharmacy.

Dr. Johnson: The question I am trying to get around to is: Do we have, as a Medical Society, any right to enter into the field of the co-insurance for the drug business? They are going to be invited to this next meeting which Dr. Ellen Winston is going to have. They are going to be asked to have representatives there, and you could as their double first cousins, make them aware of what will come up if the drugs will be in a high priority list, and let them come up with their own recommendation that after a certain amount, the drug provision comes in.

Dr. Beddingfield: I see your point that we should not dictate to the Pharmaceutical Association.

Dr. Johnson: I don't think it would be within our prerogative to do that anymore than it would be to have left the dentists at home and set out how they should participate in the program.

Dr. Johnson: I am not aware of a recommendation for the co-insurance for hospitalization.

Dr. McLaurin: I think the recommendation will come here that there be a co-insurance clause written into this and left up to

you to set the figure and exactly how it will be implemented.

Dr. Johnson: Then we can pass that on to the Hospital Association, because their membership will be present at the meeting in December also.

(Note: The State authorities never called the meeting.)

Dr. Johnson: We are going to have to get on, as we have many more things to decide. We are waiting to get some information about this Medical Advisory Committee. I think that we can perhaps go ahead and discuss a little bit more the office visit. Does anyone here care to speak a little more specifically to the \$3.00 office charge or for an office call to the exclusion of surgical procedures? Do you want to word it "to the exclusion of surgical and special procedures"?

Dr. Brinn: If we go through all these various features, we will be here until tomorrow morning. I was wondering, since we do have a Committee which is charged with the formation or negotiation and that sort of thing, and since each and every one of us has a different idea, if we could delegate it to them, we could save about five hours here.

Dr. Johnson: That is very true. The thing that we have up to the last few minutes been trying to do is to arrive at something that we could take back. Optimistically, perhaps, we led Dr. Ellen Winston of the Welfare Department and others to believe that we would have a working agreement to submit for their consideration so that they could say something to the Advisory Budget Committee within the next two weeks.

It is becoming perfectly obvious to me and to all of you that we are not going to carry anything out of this meeting today or tomorrow that we can put down in writing by next week and say, "By this we will abide."

It occurs to me that the urgency for getting in something of an estimate within the next week or two and meeting with the Advisory Budget Committee again (multidisciplines) is so that the fiscal provisions of this bill can be included in the recommendation of the Advisory Budget Committee which has to go in sometime shortly (in De-

cember), prior to the meeting of the Legislature. However, it was brought out the other day that it is not essential that this be included in the Advisory Budget Commission's report but that it can be brought in as an individual item before the Legislature and acted on under separate act of the Legislature.

It occurs to me that rather than go off half cocked with something that we can't live by and abide by, that we had better go back to generalities and then start allocating to our various committees this portion of the thing to be worked out, and that at our meeting the latter part of January that we have all of this brought in and ask that it be worked out by John's committee on Chronic Illness in a workable form and presented to us in a workable form at that time under the generalities which we lay down to them today.

Does anyone want to talk to that at all? I don't think that I would be at all happy if we stayed here until twelve o'clock tonight and we talked about every fee, of going immediately and turning that in and saying, "This is what the Medical Society will abide by."

Dr. Raiford: I think that is a very good idea. For instance, instead of trying to work out specifically and spell out priorities, why can't we report back to Dr. Winston that we will submit a list of priorities. That is one thing. Another generality is that we are requesting the vendor payments. Another recommendation that we include O.A.A. with M.A.A. We've got the generalities down and there are details that we couldn't work out here if we stay here for two days.

I think you are right in that if you have an independent committee to work on each form of it, I think we could come up with something. For instance, one committee may be asked to submit a fee schedule—including all of these priorities we have mentioned and then submit it to the Council Meeting in January, and then if it is thought out carefully, I think it will be approved, with minor changes. I think that is the only way we are going to get this thing done.

Dr. Johnson: We have a committee under Dr. Shuford that is quite conversant with

fees and schedules, and I don't believe it would pose too much of a problem for them to get together and come out with something workable, based on a percentage, perhaps, of something they already have running in fee schedule.

Dr. Poteat: Mr. President, I move that this matter be re-referred to the Committee on Chronic Illness to meet with and consult with the Committee on Blue Shield relative to fees and that that report be submitted to the members of the Council prior to the January meeting and that it be considered on the agenda at that time.

Dr. Harry Johnson: I second the motion.

Dr. Johnson: Is there any discussion pertinent to that?

Dr. Poteat: Mr. President, may I modify my motion?

Dr. Johnson: Yes, sir.

Dr. Poteat: Add to it and supplement it to the extent that the Advisory Committee to Public Welfare, Dr. Brewer's committee, be instructed to communicate to Dr. Winston that it is the feeling that as a general rule of thumb the \$3.00, \$5.00, and \$7.50 schedule would be satisfactory for initial fiscal estimates and that the details of additional fees or incidental fees of an operating program would have to be worked out around the 28th of January.

Dr. Bridger: I second that.

Dr. Brewer: I would like to say this: That some of these things are going to have to come in at a later date, such as payment to doctors for in-hospital care whether it is medical care or whether it is surgical care. If we load this thing down too heavily to start with, the Advisory Budget Commission and the Legislature of North Carolina is not going to accept it. That is my opinion.

Dr. Poteat: I believe that the provisions of that motion will give you what you need; don't you, Dr. Brewer?

Dr. Brewer: Yes, sir.

Dr. Johnson: All in favor of that, raise your hand; all opposed, raise your hand. That is carried unanimously.

Dr. Brewer: That will give me most of the needs for an initial report. Except also

Dr. Winston wants to know what criterion of income limits we recommend.

Dr. Johnson: Theoretically we've got a group considering that right now.

Now, I don't think we ought to lightly pass over this business of a Medical Advisory Committee. I think that now is the time to put that in, and I would hope that someone who is conversant with all of the agencies in this state and with the people who are participant in it, namely Dr. Norton, could sit down and draw us a Committee group from which this committee might be appointed, one member from each discipline.

Dr. Johnson: Now, in the process of discussing O.A.A. vendor payment service due to my oversight, the motion by Dr. McLaurin seconded by Dr. Verdone which we must consider here read:

"That the Committee go on record as favoring a change in the policy of the State Society to permit physicians at their discretion to accept vendor payments for O.A.A." which we passed, add "A.D.C., A.T.P.D., and Aid to the Blind."

Did you all understand that that was in it when we voted on it? I want that to be clear so that there will be no confusion about that.

Dr. Poteat: The whole business of existing assistance categories.

Dr. Johnson: The whole business, across the board. We just want that in the record for clarification.

Dr. Johnson: Dr. Kernodde, we have decided that we cannot work out everything down to minute fees and be able to put together our program exactly as we want to submit it to Dr. Ellen Winston; that we will only be able to submit generalities as are pertinent to fees and the amount of money initially involved to get under way. Dr. Brewer has been talking about that. We agreed that we would submit \$3.00 for an office call, \$5.00 for a day house call, and \$7.50 for a night house call as tentative suggestion for initial fiscal considerations. That was the general agreement for figures for them to work on toward monies to be asked for from the Advisory Budget Commission, with the reservation that certain

special fees for special work in the office, as brought up by Dr. Raiford and Dr. Poteat, would be submitted after our January Meeting of the Council.

We are working from here on in terms of generalities and not hoping to come out with anything from this meeting in the next fifty minutes from which we can write up something specific and say, "This is the program for the Medical Society." What do you think about that?

Dr. Kernodle: Dr. Johnson, I think you took the words right from me. When I came around here, the thing with which I was going to preface any remarks made would be just that. I hope, and the Committee that met with me today also hope that we don't jump into this thing too fast with all the details. If we can give some generalities, well and good, but take a little time on some of the details.

Since you mention the fees, there was one other point that was brought up, and I don't think that that would be a special consideration; but for extenuating time spent in the home for a prolonged heart attack, or something like that, should be considered as a special consideration too.

Dr. Johnson: Do you want to put into that visiting mileage?

Dr. Kernodle: It is suggested by our group that mileage be included — for excessive mileage.

Dr. Johnson: (To Dr. Brewer) You can say in your report that there will be some consideration for excessive mileage. That won't amount to a heck of a lot over the run of a year. That won't make or break the program. (To Dr. Kernodle) Give us your recommendation of priorities again, will you?

Dr. Kernodle: Priorities were that we would recommend in one category of equal importance the following:

1. Home and office visits.
2. Dental care.
3. Drugs.
4. Laboratory, x-ray, and physiotherapy services. Injections drugs given to patients in the office, but we set the fees; x-ray, laboratory, and physiotherapy given to patients that are not in the hospital as hospital pa-

tients but as an out-patient to the hospital from the doctor's office referral where those services are not available.

Dr. Johnson: The only priority that we established by action of this Council was the priority of hospitalization, which is essential.

Now, you have heard the list of priorities that have been read out as a recommendation from this Chronic Illness Committee. Do I hear any discussion? We are now dealing with your second list of priorities which involves the office, the home, the drugs, the special procedure techniques, and the dental. And they are to be recommended as of equal priority in a group of non-institutional services.

Dr. Kernodle: In a group; with equal consideration. We also sent you a list of other proposals which could be used by you, not to send on but for future reference. In-patient medical and surgical fee care, out-patient clinic care, and home-nursing care when available. These could be considered by you as an Advisory Council for future reference with other priorities in the second category.

Dr. Johnson: Do I hear a discussion as to the second group of priorities? Four things, I think, to be given equal consideration.

Dr. Beddingfield: I move that they be accepted as presented.

Dr. Bridger: I second the motion.

Dr. Johnson: All those in favor, raise your hand. Opposed? It is carried.

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Dr. Johnson: Now, do you have a recommendation as to Medical Advisory Committee?

Dr. Kernodle: Yes. To be included in the preamble of our program of recommendations we have several things and that is one of them as follows:

(1) That the program should include only medical doctors and dentists and exclude all other fields of remedial care proposed by the law, the fact being that we aren't including any services for those, for one thing.

(2) I am not sure whether you discussed the recommendations for deductible medical care; the figure should be left up to the Executive Council for a decision on how much. That before this program becomes

effective, there should be a deductible payment by the individual for a certain amount within one year. The figures ranged from \$75.00 to \$200.00 in our Committee, that figure to be left up to you.

As to the other part of the preamble in regard to a Medical Advisory Council, it is felt by this Committee that the initial bill to implement health care under Public Law 86-778 for medical assistance to the aged should have a broad base and that the plans and programming for the actual services should be prepared, arranged, and regularly evaluated by a Medical Advisory Committee whose membership would include all disciplines involved. Since the program is primarily one involving medicine, the greater preponderance of membership should be physicians. The North Carolina Medical Society will accept such a program with the distinct understanding that we will have an opportunity to withdraw from participation after due notice to the appropriate agency administering such a program; likewise, once the program is established, all future changes of rules, planning, and addition of new services in the program will be duly evaluated and accepted by the State Medical Society prior to implementation. If and when any changes in operation or expansion are anticipated or made, the Medical Society will have an opportunity to help make such changes deemed necessary to the changing times of our society. In fact, it is a recognized fact that close association with this program by the Medical Society is so necessary, that the program should be re-evaluated annually and that the audit of the previous year's experience be made available to the appropriate committee of the Medical Society of the State of North Carolina.

That was passed as a part of the preamble to this and the recommendations.

Dr. Johnson: The only thing that concerns me a little bit about that recommendation is: To whom are you recommending that "they" appoint this committee? Would it not be better, if it were possible, for this committee to be spelled out and submitted?

Dr. Kernodle: Mr. President, we realize the fallacy of that particular point, we discussed it at length, and Mr. Anderson is

not ready to give us a legal interpretation of who should appoint this committee; preferably the Governor. But committees appointed by the Governor may change according to the political times, and it might not be so wise. We thought perhaps several different avenues might be considered: That maybe we could arrange that the Medical Examiners, who are elected by the Medical Society, be the appointing committee; or that the Governor recognize the Medical Society for the appointment of this committee. Those details we could not come up with on this particular short notice. We have left some of that for John Anderson to recommend which is the best and which can be done from a legal standpoint.

Dr. Johnson: You have heard the general recommendations by the Chairman of the Chronic Illness Committee. Do I hear a motion that in principle these recommendations be accepted?

Dr. Bridger: I so move.

Dr. Raiford: I second the motion.

Dr. Johnson: It has been moved and seconded that in principle these recommendations that we have just heard be accepted. All in favor say "aye." (Large response)

Dr. Raiford: Mr. President—

Dr. Johnson: Just a moment.

(Discussion off the record.)

Mr. Anderson: I would suggest.

(1) That we ask that a committee be set up representing all of the disciplines or agencies involved.

(2) That since it is a medical program, a majority of the committee be physicians.

(3) That the physician members of the board be appointed by the Governor from a list of nominees submitted by the Medical Society.

(4) That the terms of the committee or council be arranged so that a third of them would be reappointed every three years, or every term for a definite term of whatever number of years you would determine it to be; in other words, to provide staggered terms. Now, those members' terms could be on a 6-year basis or on a 4-year basis as you and the legislators might determine.

Dr. Kernodle: One thing that was discussed that John Anderson didn't bring out,

was we think that these disciplines should be spelled out; such as a member from the State Board of Health which is involved in this program, the Medical Care Commission, the Blind Commission — you should spell those out. There are two reasons for that in my mind: That it will give us more impetus and strength because they, too, would like to participate in such a program and they would help us get the law to include it, I believe.

Dr. Norton: We have had quite a bit of discussion in our Board of Health about the term "physician" or "medical doctor." In some states optometrists call themselves physicians, and chiropractors call themselves physicians, but they can't call themselves medical doctors, and we have felt that "medical doctor" might be a little more definite term, because they can throw in two or three of these others and give you a majority on there but they wouldn't actually be medical doctors.

Mr. Anderson: I agree. I have used the word physician, meaning a medical doctor, but you are right about that; I will start using the words "medical doctor."

Dr. Johnson: We have a motion before the house that we accept this recommendation in generalities, the principles in general, and it has been seconded. Is there any further discussion?

All in favor, raise your hand; all opposed, raise your hand. It is passed unanimously.

Mr. Anderson: Mr. President, do you want to pass on any more definite recommendation of the present body for the appointment of medical doctors as members of this Commission or Advisory Council?

Dr. Johnson: We are going to come to that. If you have it in generalities where you can hold it, we are going to work out something in a minute, because we can not get a thousand more items settled here today. We have got to get those that are necessary settled so that they can implement this thing, and then I have in mind a motion that somebody is going to make in a minute or two or three to implement this thing to get it together for our January Executive Council meeting.

Dr. Brewer just handed me a note and said that we need to decide on income limits.

Dr. Kernodle: I have a recommendation. Eligibility Requirements. The following three parts of this requirement are included in our proposal:

1. \$1,000 annual income per person or \$2,000 per couple.
2. \$7,500 net worth per couple.
3. \$1,000 liquid assets per couple.

Then a clause covering extenuating circumstances which would merit special consideration to be passed on by the Advisory Committee and a deductible to be set by the Executive Council of the State Medical Society.

Dr. Johnson: Do I hear any discussion of this proposition as a means test?

Dr. Brewer: Let me read from my letter here received from Dr. Winston: "It is my impression that states are thinking in terms of the level for a single individual as \$1,000 or \$1,500. Our own discussions . . ." (That is with the Advisory Budget Commission) "to date have indicated that there will be strong support for \$1,200. There will also have to be provisions for taking into account resources of any major value and a variety of other controls."

Dr. Kernodle: We have the same letter, Dr. Brewer, and we discussed this, but we also thought if we, knowing no more about the basis for this than we do at the moment, set up \$1,200 and find ourselves way out on the limb, if we would be little more conservative and set up \$1,000, then if the Budget Commission said they needed \$1,200 we will have an opportunity to evaluate it in the meantime and be in a compromising position; whereas, if we set it at \$1,200 now, they will probably come back with \$1,500. So we think that \$1,000 is the just amount that this group should pass on at the moment in spite of the fact that it was recommended as \$1,200 by Dr. Winston.

Dr. Bridger: I make a motion that we accept his Committee's recommendation.

Dr. Johnson: Dr. Bridger has made a motion that Dr. Kernodle's report be accepted as a recommendation.

Dr. Raiford: I second it.

Dr. Johnson: Is there any discussion?

Dr. Johnson: All in favor of this, raise your hand. Opposed? Then that is carried.

Dr. Johnson: Do I hear a motion from any of you gentlemen that the Committee on Chronic Illness and the committee advisory to the State Board of Public Welfare be authorized to transmit in generalities and wherever pertinent in specificities the action that has been taken here today, and that these two committees be empowered with the aid of other committees of the Medical Society of the State of North Carolina to draw up and present to the Executive Council when it meets on January 28, 1961, this whole proposition in its entirety in a workable order so that it can be acted upon by this Council and presented to the proper authorities. Who will make the motion?

Dr. Harry Johnson: I will.

Dr. Paschal: I second the motion.

Dr. Johnson: Is there discussion of this motion?

Some committee or some two committees or some two or three people with the aid of John Anderson have got to sit down and put this thing down in sentences in black and white. We will never do it here. We have approved the thing so that they can come up with it; they've got the general ideas that we have in mind.

Is there further discussion to this motion?

Dr. Johnson: All in favor say "aye"; all opposed "no." It is carried.

Dr. Johnson: Here is something that Dr. Gavin asks that we give him a vote of confidence on.

Mr. Barnes : (Reading) "The Medical Society of the State has followed the demonstration of home medical care over the past two years as carried on under the endorsement of the Person County Medical Society and sponsored by the Person-Orange-Chat-ham-Caswell-Lee District Health Department. This project is designed to bring the team-work care of medical and paramedical services to the chronically ill into the home with-

out resorting to expensive institutional and hospital services.

"Those of us who have observed this program are aware of its success and import. The County Medical Society and the doctors of Person County have repeatedly reported how effective and desirable this type of program is in meeting existing and realistic needs and facilitating adequate medical care by the physician dealing with these cases.

"Because of this the Medical Society of the State of North Carolina would go on record as thoroughly endorsing this type of program and commends it as a field of service program which the medical profession should sponsor and which the political jurisdictions of North Carolina should sponsor and finance and operate at the county level with and through medically oriented agencies."

Dr. Johnson: That is a resolution that Dr. Gavin wanted passed to sort of bolster up the program that he has been working in those five counties. It does not have anything of specific import in it other than that the Medical Society of the State of North Carolina endorses it and thinks it is a good thing and would like to see it furthered.

Does anyone care to make that motion?

Dr. Reece: I will make the motion.

Dr. Paschal: I will second it.

Dr. Johnson: All in favor of this motion, raise your hand. (Unanimous response)

We stand adjourned.

EXECUTIVE COUNCIL MEETING

February 12, 1961

Caroline Hotel

Pinehurst, N. C.

Medical Society of the State of North Carolina

Executive Council

In attendance — Officers: Amos N. Johnson, M. D., Claude B. Squires, M. D., Theodore S. Raiford, M. D., Charles T. Wilkinson, M. D., John S. Rhodes, M. D., Donald B. Koonce, M. D., Edward W. Schoenheit, M. D.

Councilors — T. P. Brinn, M. D., Lynwood E. Williams, M. D., Dewey H. Bridger, M. D., Edgar T. Beddingfield, Jr., M. D., Ralph B. Garrison, M. D., George W. Paschal, Jr., M. D., Edward S. Bivens, M. D., Harry L.

Johnson, M. D., Thomas L. Murphy, M. D., Wm. A. Sams, M. D., John C. Reece, M. D., James T. Barnes, William N. Hilliard, John H. Anderson.

Non-Voting Members: Hubert McN. Po-teat, Jr., M. D., Roscoe D. McMillan, M. D., J. W. Roy Norton, M. D., Wingate M. Johnson, M. D.

Others attending — Mr. Foristel, Dr. John Kernodle, Dr. Jacob H. Shuford, Dr. Prescott Spigner, Dr. R. D. Kornegay, Dr. Brewer, Dr. George Noel, Dr. John S. Rhodes, Dr. Wayne Benton, Dr. W. C. Goley, Dr. Bugg.

Sunday Morning Session February 12, 1961

The Mid-Winter Meeting of the Executive Council of the Medical Society of the State of North Carolina held in the Crystal Room, Carolina Hotel, Pinehurst, North Carolina, convened at ten-five a.m., Dr. Amos N. Johnson, President, presiding.

President Johnson: The meeting will please come to order. We will now have the invocation. (Invocation was rendered.)

Dr. John S. Rhodes: I declare a quorum.

President Johnson: A quorum being declared present, we will try to start our discussions and deliberations. We have a long agenda. We have a lot of important decisions which may carry over for a long time with us as doctors in the state.

As the agenda has been altered somewhat, we are going to take up first things first, instead of going directly down the agenda. We are going to take up those things that are important while we are all here and fresh and eager.

We do not want in any way to curtail discussion but on some of the items that are going to be brought up, there should rightly be discussion, a lot of explorative thinking, and as long as all of you will stay pertinent to the topic under discussion, and not be repetitive, there will be no limitation of the discussion.

However, we have an agenda that is going to require a major part of this day, and so let us not get off the subject. Let us not get too philosophical in our discussion. Let us stay pertinent to the matter at hand.

Turn to Report on the National Legisla-

tive situation in respect to the Key-Man National Legislative Committee, under Forand type bills now introduced in the 87th Congress.

Dick Nelson, who is assigned from the American Medical Association to this section of the United States in charge of this type of work was here with us Saturday. He had to leave. We have with us from the Washington office Mr. James Foristel, and I will ask him to talk to this.

Mr. Foristel: Forand type bills now introduced in the 87th Congress: For those of you who were here yesterday, I went through the four benefits, as they are called, in the President's message, his message on health that had to do with a Forand type bill. Briefly, there are 90 days of hospitalization with a \$10 a day deductible for the first nine days, and 81 days of free care thereafter; to be followed by 180 days of nursing home care after a hospital admission; diagnosis and treatment services in a hospital—and we understand that means by physicians who are employed by a hospital; some home nursing care, and no medical benefits, that is, no payments for physicians.

Now your agenda says Forand type bills now introduced in the 87th Congress. There are many bills that are introduced this year which are repetitions of last year's legislation. This is a habit of a legislator to drop back into the hopper any bill that he had last year. I am not going to burden you with those, because they mean nothing, save one. One bill over in the Senate side, known as the Javitz bill, which would be, if enacted—it would amount to a Federal subsidy for insurance premiums for persons of low income. The Javitz bill, as I understand it and did last year, was a bill to permit Republicans on the Senate side to vote for something and still be able to vote for something as against the Kennedy type or Forand type bills. That bill has been introduced. It has eight Senate sponsorships. It is part of the political maneuvering.

The Kennedy proposal that I talked about has not yet been put in bill form (later introduced in House and Senate recognizable as the King-Anderson Bill), so I believe that your attention should be directed to the new

bill. We understand that the President has asked that the House Ways and Means Committee start hearings in either late March or early April. I don't think he is going to get his wish, because there is too much legislation ahead of it.

He has also told his associates—and this has come out in a conference with the American Hospital Association people who visited his work or task force, headed by Wilbur Cohn—that he plans to have thirty-two governors testify at these hearings over in the House side whenever they take place.

The next item on the agenda is the Keogh-Simpson-Smathers type bill, HR 10 of the last Congress. This bill again will be introduced by Smathers in a little different form, in a form which the Treasury officials last year accepted. Whether or not it is going to pass I think is a very secondary item for us.

We are here to talk about retention of the free practice of medicine, and I don't think we ought to be putting too much time in on HR 10 at this particular time, and I am just going to pass this one for today. There will be a more appropriate time to talk about it. This President has got a program that is full of large dollar programs, and I don't see any tax relief for the kind of people that are covered by HR 10 in this President's mind at least this early, and I don't see too much strength in the Congress at the moment. So let us pass that one for today.

And now (c) in your agenda says "What course of action will the Medical Society of the State of North Carolina take related to Social Security mechanism during the 87th Congress?" And this is the big topic. This is the big topic if I were in Georgia, or if I were in Florida, or if I were in Missouri, because what will each of these fifty states do to help us in this one big endeavor that we have?

All they can do—really all they can do—is assure us that they have their two Senators and their House members on our side, and of course North Carolina can only do that. You cannot help us with Florida; you cannot help us with Missouri, but we look to you to continue as you have, bringing to us reports that you have, the assurance of your

own members that they will follow the views of organized medicine.

I have always been amazed at what Jim and all of your officers, and all you men, have done so very well down here, because I have always believed that it is easier in Virginia, Florida, Georgia, and North Carolina, on a par, and I say they are the best States that we have. And I say it is a great tribute to you folks and the kind of people you have raised in your state to be able to sell these people this kind of viewpoint.

We need to have you—and I believe now to have you urge some of your friends who are interested in a continuation of free enterprise—start writing to all of your House members. But let us try to have a program in the next month of getting every doctor to get at least ten businessmen, not doctors, to write to their House members in their own districts, and if you will try to give them just an idea or two of why the bill that Mr. Kennedy is offering is a bad one, that is as far as we might want to go.

Every foreign country has got it, and yet all the medical students come here; all the foreign doctors are here. They are loaded on our hospital staffs now, and no American doctor wants to go abroad. There must be a quality difference, and there is, and you know it. And so quality-wise, you don't want to bring a system of government medicine here to imitate these other countries that will lower the quality of care to the patient, and this is the proof positive that quality is here and no place else, and that socialized or government medicine is everywhere else.

Cost-wise, the President says he can sell his product, put it on the books for a billion and a half dollars. He cannot. It will cost \$3½ to \$4 billion for hospitalization and nursing home care alone. You can use these figures: 8 days a year times 14 million, 112 million hospital days, times \$30 a day; national average is 3 billion 6 dollars for hospitalization alone. Give them those easy figures.

And then philosophy-wise, we don't want to imitate these countries, socialized medicine or government medicine—it is only the beginning of government railroads, government communication, government banking,

which all these other countries have adopted, and a lower standard of living for everybody.

So these three ideas alone are important. And then if you are convinced that the Mills-Kerr Bill is the better approach, the Mills-Kerr Bill being a fifth category of public assistance, you can point out that it cannot be any bigger than a fourth as big as a program that covers everybody, and therefore can only cost a fourth as much as a program that covers everybody. Keep your reasons simple. Try to get these letters in for us. Try to develop an attitude for us, and I think that this is about the message that I want to leave with you this morning.

President Johnson: That is fine, and you will probably get on the plane right now.

Dr. George W. Paschal: I would like to ask Mr. Foristel if we, as a Medical Society, should take official action in communicating to our Senators, and to our Congressmen, as well as maybe communicating with the Committee itself, would that strengthen our position for us officially to write and say, or have Amos as President write to these people saying that it is the consensus of the Society?

Mr. Foristel: You folks have been doing that right along and it won't hurt to do it again. I would rather have you put your pressure on the outsiders. It would be much more helpful. This is a taxpayer worry now. This is a worry of setting up a program that is not an American program; it is a socialistic program. It is changing our type of government. I would rather have the outsider say so; it will be better.

President Johnson: Is there other comment or question? Thank you very much. The next subject in my opinion, we are going to spend quite a bit of time and discussion on today, and I think that it is most important that everybody listen to every word that is said, and analyze it carefully and closely. Make all of the comments that you want. Express your opinions, but stay pertinent to the topic at hand. Dr. Kernodle, would you care to lead off in talking to this proposition?

Dr. Kernodle: Dr. Johnson, Members of the Executive Council and Friends: It is a

very difficult problem for me to bring to you this morning some mixed emotions that have occurred within the last twenty-four hours with regard to our recommendations to the Governor and the General Assembly. Nevertheless, on the twenty-eighth of November last year, you met in this room and recommended that we take to Dr. Winston certain recommendations. A letter went out over my name dated December 7 to her, and all of you have had a copy of this letter.

In it we recommended certain things be included in a bill or program on Medical Assistance to the Aged. We have diligently tried to carry through our recommendations from you to her and to the Governor.

We received a letter back from her thanking us for our letter of recommendations, agreeing in principle on everything, but not completely on some of the details. Now there are three factors that come into play today that we want to try to get straightened in our minds and your minds.

First, the Council went on record as requiring us to negotiate for vendor payments in Old Age Assistance, and Medical Assistance to the Aging program. Likewise, the Council went on record at that time—a suggestion that the fees be \$3, \$5 and \$7.50, with a request of the Blue Shield Committee to recommend fees, if these were not satisfactory to their thinking. That Committee will give you some recommendations in a few moments.

In addition to that, we had in our letter to Dr. Winston a paragraph on eligibility \$1,000 income per year, \$2,000 total income for two people per year; \$7,500 net worth for the two people; or \$1,000 liquid assets for two people.

The next day, Dr. Winston presented a bill to her Board of Welfare, and we were fortunate enough to get some information as to what it contained. I did not receive a copy of this bill from her until February 10. In the meantime, we realized she had omitted from her bill certain things that we had requested and that you desire, namely eligibility; the second part that we recommended was the formation of an Advisory Committee consisting of various disciplines to formulate plans and programming for the Medi-

cal Assistance to the Aged.

Now I want to emphasize and to talk to three points in particular; one, eligibility; two, the Advisory Council that we recommended or was suggested to be recommended; and three, vendor payments. The remainder of her bill is within line of our thinking, except for one paragraph which I will mention at a later moment.

First, vendor payments were requested to be obtained from the Government at this time. After thorough consideration and discussion with all segments of the medical profession over the State, we found that there was a marked variation in fees desired.

There is a feeling that there is going to be little money available for the MAA program, and there is a feeling amongst our legislators that if we ask for any payments for doctors, we might be opening up the old story of "Doctors want everything for themselves." We frankly feel at this time, and to the point of one other phase of the program, that there has been a marked divergence in the number of people eligible from the standpoint of Dr. Winston's recommendations, 187,000. A later figure, 85,000 eligible for MAA Assistance.

Our most recent data obtained by Mr. Barnes is that there would be an estimated total of 65,000 in our population eligible for some type of MAA Assistance, and that in all probability only approximately 5 to 12,000 of these would be receiving marked assistance within any one year.

Therefore, there is a marked divergence of the need. With this in mind, we met with the Chronically Ill Committee, the chairmen of three or four other committees, namely Legislative, Advisory to the Public Welfare, and so forth; and at that time it was requested that I bring back to you the recommendations that you reconsider vendor payments for the Old Age Assistance, and vendor payments for MAA at this time. I want to emphasize those three words "at this time." We do not think it wise for the Medical Society to request vendor payments at this time.

Secondly, we are in agreement at the moment that the bill that Dr. Winston has recommended has a flexible eligibility state-

ment. Our lawyers, in conjunction with the other disciplines, namely the Dental Society, druggists, hospital administrators, and county commissioners, have recommended that we likewise insert a flexible eligibility requirement into our bill, or recommendations at this time, rather than a strict level of eligibility, such as an income of \$1,000, and so forth down the line, the reasoning being that if you insert that type of structure into your bill you immediately commit all people under that level to have the right to receive MAA assistance; whereas if you have a flexible program, you have an individual determination of eligibility for assistance under the program, thereby making it a much more flexible and a much more workable program.

We realize, in thinking along these lines, that there is a difference of reliability and trust that we have to place in first our Commissioner of Welfare, and second, in the Advisory Council that we are going to talk about in a moment. We hope that that Advisory Council would be the responsible concern.

First, I say that we worked on the premise that the Advisory Council could be a power committee. We have recommended in our program in conjunction with these other disciplines that it be composed of approximately nine to eleven people, and we have had recommended and had acceptance of these other disciplines, that three of those be practicing physicians, two of them be county commissioners, two be hospital administrators, one dentist, one druggist.

The point in question with regard to this Committee, and I have stated many times in my talks over the State and also to people, is that this Committee would have power, and that is what we hoped for.

I got from Mr. Foristel yesterday that it probably will not be accepted by HEW if spelled out as powerful as we had outlined in our first, second and third drafts of the proposed bill from the Medical Society and the other disciplines. He says that it has already been tested by Georgia, and they turned that down when they asked for a committee with power.

There are two or three other alternatives.

One is that we can have a committee organized that will be control to this point, and he thinks this will be accepted, and that is that the Committee will make recommendations and suggestions to the Welfare Department for changes of programming which will be carried out as such.

I believe that covers the points that I have in mind, Amos. Perhaps you might have something else.

President Johnson: Thank you, John. I will have something to say in due time. I want to digress from the planned schedule of talking to this proposition of implementing the Mills-Kerr bill, to get some comments from Mr. Foristel, who has to leave in about ten minutes to go back to Washington.

Now I would like for him to comment as to all three; first, as to participation; and then second, as to all three of the topics that Dr. Kernodle spoke to; that is, eligibility, our proposed Commission, and vendor payments.

Mr. Foristel: Let me preface my comments by saying that we have determined from looking at the situation in Washington that if we don't have twenty to twenty-five states with an implemented Mills-Kerr bill by the end of this session of Congress, the next year we are in pretty bad shape. With that in mind, here we are up to the stage of introduction of a bill in your own legislature.

You have got three items in a bill which has been introduced that do provide you concern, and I can see how they would. The biggest stumbling block in your minds no doubt is to have an effective advisory committee built into the law, and I think your efforts are noteworthy and worth while; and if I were you, I would be certain that I had a committee such as you are endeavoring to set up.

Unfortunately, the Social Security law that was first written in 1937, under Title I, which provided for Old Age Assistance, which preceded the so-called insurance system which most of you call Social Security—public assistance came first, and Old Age Assistance was the first of the four public assistance programs to be enacted, and that

is why it is called Title I of the Social Security Act.

In that Title, it was provided that a single state agency had to deal with the Federal Government, and of course the framers of that bill had in mind that they would be dealing with the welfare department. At that time, public assistance was a complete dollar program. They gave dollars to pay for food, clothing, heat, light, all the requirements of simple living, with no thought about medical care, or very little thought being given to medical care; and whatever thought there was was putting dollars in a fellow's budget so that he would pay for a doctor's visit once in a while, and of course his hospitalization came from his county, or from his state, all depending upon your state constitution.

But the law said in Title I that the Federal Government would deal with a single state agency, and through the years, as the other titles of public assistance have been set up, this language has been repeated, because the Federal Government wanted to be able to look to one agency for an accounting of funds, because any funds expended at the state level had to be matched with Federal funds, and they had to justify the Federal matching dollar. They wanted to look to only one agency for an accounting.

So now when you attempt to set up a Council, as you wisely tried to do, you bump into this provision of the Federal law, and a committee with power to tell this single agency what to do—and of course that is what you are trying to do here in the effort that you would like to have accepted. If you interfere with this single agency to the point where you tell it what to do, how to draft its regulations, and so forth, you are interposing something between this single agency and the Federal Government, which the Federal Government doesn't want.

So in the case of Georgia, a committee was set up with power. It is a little bit different from your situation. That committee, as they set it up, would have had the power if there was a dispute between one of the providers of health care and the agency, they were to have final authority, and of course they would take authority away from

the single state agency.

This in effect does the same thing. It takes a power away from them to draft the regulation of eligibility, and also what kind of benefits; and so this is what we are bumping into.

It is my opinion when this goes to the Federal Government that they are going to raise the red flag. Maybe they won't. Tomorrow we have an understanding that there will be a conference called between the Chief Attorney for Public Assistance, the Chief Medical Director, Dr. McNealy, and three or four of your people, so that we will have all these questions asked, including your jurisdiction, and we will get our answer.

Now if we have to back away from this language, there is a place where possibly we can stop and still have some authority, and that is if we have this council of people, this advisory committee, given the power to recommend regulations, and the Welfare Department cannot make regulations until they have considered these recommendations, or possibly we can word it so that they can only accept those regulations which are provided by this group, but they won't have to accept them.

Dr. Edward W. Schoenheit: I would like to ask Mr. Foristel, how about the other states that have submitted this program with regard to vendor payments?

Mr. Foristel: I only know that Michigan has provided for the vendor payments of a few that have started. I imagine in many of the states there will be vendor payments. Under the old program, I would say that two or three of the states did not have a vendor program. I know personally about Virginia. Doctors made no charges, especially in hospitals for surgery, or office calls. I know about Missouri. They make no charges. I know about Florida; they make no charges under the old program.

In Kentucky, it says that no vendor payments shall be made unless the class and type of medical care rendered and the class or basis therefor has first been designated by regulation.

President Johnson: Does anyone have any questions he wants to ask Mr. Foristel?

Thank you very much for being with us.

I hope you have a nice trip back to Washington and I guess we will be talking with you tomorrow.

Now I had sort of jotted down a mode of operation here, so that we could keep pertinent to the various steps of handling this, and keep it in a businesslike order, and get it done in due process.

The first thing that occurs to me is that we should again discuss whether we are going to participate in it. We have those members in our Society who are opposed to participation at all in anything pertinent to Kerr-Mills. We have those who are very enthusiastic in participating in it. We have those who do not want vendor payments. We have those who do think we should best have vendor payments; and we have those who are in favor of care for the aged being implemented under Social Security.

Dr. Shuford, will you talk to the fee schedule?

Dr. Jacob H. Shuford: At the request of the President, the Blue Shield Committee was asked to consider this problem of tentative fee schedules to be used in case vendor payments were authorized under the MAA. So our Committee met, and actually we were selected because we deal primarily with fees, and yet we have not dealt with them in this aspect before.

The Committee is well constituted, representing most of the specialties and general practice, and we felt that we were in a rather precarious position to recommend to the Society anything that we were so really ignorant about. But we came up with this philosophy, if you so call it.

This is Federal money, this tax money being made available to people, and the doctors were going to render the services; therefore, if we were going to participate on the vendor payment idea, then it was necessary that we establish a plane of negotiation, knowing that this would be only a point of departure in negotiation.

In pursuing rather quickly all types of fee schedules that are available, it was the recommendation of the Blue Shield Committee that in general, the present Medi-Care schedule that has been utilized in the State of North Carolina is negotiated by the Medi-

Care Committee under Dr. David Cogwell, being used particularly on the basis as it would involve in-hospital professional fees. Perhaps you would understand it better if I said it was a \$300 surgical schedule. Your doctor program is based on a \$200 surgical schedule. And in the Medi-Care Schedule is one of the most complete and concise, well-worded and well-coded nomenclature—there are also included your ancillary services, laboratory, pathology, physiotherapy, and those things, and those fees we felt were reasonable. Those ancillary services could be used either on an in-hospital basis, or as an out-patient basis to aid the physician in his out-patient care of this type of person.

So that was the recommendation, that we adopt the Medi-Care in general for a plane of negotiation. Then came the question that the Medi-Care schedule does not provide out-patient basis in the doctor's office or in the patient's home, and so the recommendation of the Chronic Illness Committee was considered, and with the same philosophy. We recommended that the original visit with complete history and physical in the doctor's office should be \$20 for the first year. I mean, in other words, that would cover his original visit in any one given calendar year, and any subsequent visit be \$4, and we question whether this should be limited in the number of times—we made no recommendation as to limitation of visits. Basic office visits, \$4 for minor illness, minor care, or subsequent visit involving complete history and medication on the original visit.

And then the question of home calls came up, and you run into these things: of mileage, extended stay, prolonged time, seven a.m. to seven p.m., et cetera; and in order to clarify, we just recommend that a home call basic fee be \$10, regardless of mileage, regardless of prolonged stay, regardless of time of day.

The Blue Shield Committee so recommends the report as given.

President Johnson: Does anyone want to ask any question pertinent to the recommendation of the Blue Shield Committee?

(Clarifying questions were asked and answered.)

President Johnson: Are there any other

questions?

All right, I believe that then creates the atmosphere for understanding that will permit us to go into the next item of discussion, and there are two things together.

I think our active participation will—I know it will by virtue of definition—depend upon whether we are participants in vendor payments.

We have with us today some people who represent regional subsidiary societies of our State Medical Society who have asked that they be given an opportunity to speak to the general area of the participation in this bill.

We have with us Dr. Prescott Spigner from Kinston, who would like to talk to us for a few minutes.

Dr. Prescott Spigner: I have printed this little presentation and have mailed it to you, so I will speak from exactly what I have written previously.

Mr. President, Members of the Executive Council of the Medical Society of the State of North Carolina:

I am appreciative of the courtesy extended in allowing me to speak to you briefly on the advisability of our Society participating in the Kerr-Mills legislation adopted by the Federal Congress. I speak to you as a physician member of this Society interested in the welfare of the medical profession both individually and collectively, in the welfare of the people whom we serve as patients, and as a citizen interested in the welfare of my community, my state and my country.

The general trend of thinking of the profession as I gather from personal contact, and as advocated by the American Medical Association in this, "Participate wholeheartedly in the Kerr-Mills program so that we won't get something worse."

Gentlemen, I respectfully submit that such thinking is to me unwise and unsound. Though this may represent only the first step into the "unconcealed" socialization of medicine, can any informed man sincerely say, "by acquiescing we will not get anything worse"? I think it is unnecessary for me to go into details regarding the huge encroachment upon the free enterprise in every field in which the Federal Government has entrenched itself.

In current political history, not one man here will disagree that the trend is swift and steady toward broader intervention by the Federal Government into every facet of each individual's life and means of livelihood. Why has this trend developed? The answer in one word is "propaganda." Propaganda skillfully applied by socialists and liberals to circumvent the truth and deceive the public into believing that they need dependency upon enlarging Federal bureaucracies and at the same time smothering their will to maintain their dignity by providing for themselves.

Those in control of the bureaucracies carry with them the means to disseminate the so-called "news" which will gratify their own selfish and shortsighted goals of power. An excellent example of this is that the American public is flooded with the "news" that, "the aged are dying for lack of medical care," this being a newspaper quotation from the sessions of The White House Conference on Aging which met January 9 to 12 of this year. This is one of the greatest propaganda machines to be foisted upon this country in its history! On January 8, 1958, U. S. Congressman John E. Fogarty, (Democrat, Rhode Island), a vigorous young socialist in the fields of health, education and welfare, introduced HR 9822, a bill providing for this White House Conference on Aging to be held in January, 1961. Represented here was every class of persons from labor unions, social services, churches, retired teachers, The Association of Retired Persons, The National Consumer's League (!), innumerable Federal agencies, and by some quirk, the American Medical Association. The above, even with the inclusion of our mother organization can be classed only as extremely left and extremely liberal as a whole. For those who may be interested, the final recommendations of this Conference are obtained from a system which leaves the final policy-making in the hands of a very few. Its organization, in my studied opinion, is totally undemocratic and fashioned in a similar manner to the system of Soviets in the Communist world today! Does such a group presume to decide the medical needs of the aged—or of the nation?

This is the nature of the machine we face. Shall we be intimidated into admitting to a problem which does not exist in more than infinitesimally small amounts? Making progress and being for something are phrases to which liberal propaganda has given an appealingly magic power. They claim we conservatives are always against everything, never for something. Many conservatives are confused by this charge into going along with a "little socialism" so that they may consider themselves for something!

I maintain this group assembled today is for something, and it is not a "little bit" of socialism. It is for the free and honorable practice of the art and science of medicine in an atmosphere of responsibility and trust, uninhibited by bureaucratic directives and red tape! I maintain this group of free men desires to stay free and not see the progressive encroachment of expensive Federal meddling and mismanagement extended from patients over 65, to patients over 55, to patients over 45, and finally to all age brackets, which includes everybody!

That this will occur needs no argument.

This bill, gentlemen, is one small part of the over-all socialist plan which is enveloping our country through, and only because of propaganda. Shall we take a stand for freedom or shall we allow the caressing arms of socialism to embrace us tenderly—and then choke us?

Upon what shall we base our stand? We need not base it upon the fact that the doctor of medicine will become another in the mass of Federal employees. We need not base it upon the fact that the heartfelt compassion of the doctor, sharing the ills of his patient, have a driving desire to help, will be smothered. We need not argue on the financial burden which is today slowly and surely crippling our country which fact is conveniently ignored by our liberal friends. We need not argue that this social experiment in England is a nadmitted economic and medical catastrophe from which they cannot extricate themselves. Once the first step is taken, there is no turning around. We need not argue on the constitutional rights of the states and individuals which are now being systematically stripped from us by the Su-

preme Court. These are self-evident, if ignored, facts.

Upon what then shall we base our position? In current history socialism is very close kin to communism, a fact which the socialists will not admit, and the Communists would just as soon we not yet realize. Communism is the godless socialism of one billion of the world's peoples today. Let us then take our stand with God as a bulwark against socialism, against the loss of individual freedom and dignity, against communism. Shall we face communism, which threatens the life of every man in this room today with a nation which is writhing under the enmeshing chains of bureaucracy, or shall we stand as a proud, free, productive nation of God-fearing and God-dedicated men? Let our God be God Almighty and not the Federal Government, which in my opinion is attempting to assume the role of God.

Let us not be pressured into participating in this legislation. Let us take further action by keeping informed on current legislation, by joining a group such as The Association of American Physicians and Surgeons which will bring this information to your desk. Write your state and Federal legislators frequently. Have your family do the same. Examine the so-called "needs" which are propagandized by the socialists, and if such does exist—and often it does not—correct it by individual and group action on the local level. Let the public know that we are vitally interested in them by reaffirming our dedication to them in our practice. Be good and productive citizens by contributing time and money to worth-while community activities.

Today take a stand to show that we of North Carolina are unintimidated and unashamed and have a purpose with God in the interest of our country and mankind.

I thank you.

President Johnson: Thank you, sir. May I remark that that is a fine, well-thought-out, well-prepared and most excellently presented paper that is worthy of much thought.

We have with us today also a person who represents a narea, a group in Eastern North Carolina, and we have allocated him some time on our agenda. Dr. Kornegay!

Dr. R. D. Kornegay: President Johnson, Members of the Council and Guests: I appreciate this opportunity to present this petition to you that is being offered by two county medical societies and 216 physicians-at-large from various counties throughout the State. This will be very brief.

During the past fifteen years, freedom in the practice of medicine in North Carolina has been definitely curtailed. This has been with the sanction of the Medical Society of the State of North Carolina.

Among the most prominent of these measures limiting our freedom have been: one, The Doctors Plan; two, the Veterans' Administration program; three, the Medi-Care program. With each of these an appointed committee of the Executive Council has, after study, recommended adoption, which has been forthcoming in the House of Delegates, all of which is perfectly legal and proper, but in no incident has the problem been taken thoroughly to the individual physicians at a county level for presentation and discussion pro and con.

Two issues of vital importance to the future of the practice of medicine are to be presented and discussed at the Executive Council meeting on February 12, 1961. The first of these is the establishing of a corporation known as the North Carolina Physicians Service, Incorporated. The purpose of this Corporation would be to improve, enlarge and control the Blue Shield program in North Carolina. This Committee, with the help of the Blue Shield Committee, would establish fee schedules, establish premium rates, and in general supervise and control Blue Shield.

The second issue is the degree in the manner in which the State Society would participate in the Kerr-Mills Act. These issues can and probably will mold the future of the practice of medicine in this State. Since they are so vital to every North Carolina physician, the undersigned county medical societies and individual Society members-at-large request that no action be taken by the Executive Council or House of Delegates until these programs are presented in detail to each county society for discussion, question and answer, and study.

We feel that these matters are too important for a committee of the Executive Council to act on without showing the individual physicians the deserved courtesy of deciding their own fate for the future. This is signed by the Edgecombe-Nash Society, the President of the Warren County Society, and 216 additional physicians from Mecklenburg, Gaston, Halifax, Wake and Franklin Counties. Thank you, sir.

Dr. Edgar T. Beddingfield: Was that an official action of the Edgecombe-Nash Society?

Dr. Kornegay: Both Societies. A resolution signed by the officers. The others are individual signatures of physicians that were sent throughout the State.

President Johnson: Now do we have others, other than members of this Council, who have come here and have a desire to say something to the Council pertinent to this portion of the Mills-Kerr bill?

I see some sitting around who have expressed some thoughts about it elsewhere. I believe I suggested in one of the little things that I did for our State magazine that we wanted everybody to be informed about this, and we wanted everybody to participate in this; and that anyone who came to this Executive Council meeting with a word to say would be given an opportunity. Right?

I assume then that that takes care of the desire to convey to the Executive Council the feeling of those present here today.

Dr. Donald B. Koonce: Does Dr. Spigner represent Lenoir County or an individual?

Dr. Spigner: That is strictly an individual presentation.

President Johnson: We have got an answer to that. Jim, will read us a resolution sent us from the County?

Mr. James T. Barnes: This is a copy of a letter dated February 3, 1961, addressed to the Officers and Councilors of the North Carolina State Medical Society, by Dr. Lynwood Williams, Councilor of the 2nd District, a member of the Executive Council, to Dr. Wilkinson:

At the request of the Lenoir-Jones Green County Medical Society of the State of North Carolina, I hereby submit the following motion passed at its regular

meeting January 23, 1961 for your information and possible consideration:

MOTION: That the 2nd District Councilor, namely Dr. Lynwood E. Williams, of Kinston, North Carolina, convey the feeling of the Lenoir-Jones-Greene County Society—that the whole matter of implementing the Kerr-Mills Act in North Carolina be brought to a call session of the House of Delegates of the North Carolina State Medical Society before proceeding further; and that each local County Medical Society in North Carolina should meet, discuss the entire matter, and instruct their respective delegates as to their wishes concerning participation in this legislation.

This motion was passed with no opposition.

A second motion—that the Lenoir-Jones-Greene County Medical Society oppose participation in the Kerr-Mills Act, as it is now understood, was tabled for the reason that further definite information was needed before a final decision.

President Johnson: That is actually for a matter of information. I might state to everyone concerned here that what we are doing here today—the policies that we set up here today are in no wise binding on the Medical Society of the State of North Carolina. The final act on implementing this Kerr-Mills bill will be done as an act of the House of Delegates.

So what we are doing here is investigating, trying to formulate opinion, trying to decide what to recommend to the House of Delegates; but the act will itself be taken by the representatives duly elected from all of our various component county societies of the State of North Carolina, so that no one can say that anything was forced upon him.

I would like to speak a minute to the proposition of allowing time for all of the county societies to have a meeting and to discuss this. When I had my opportunity to talk, in the first talk I made before the Medical Society as President in Raleigh, I promised to try to keep everybody in this Society who would go to the trouble of reading their *Medical Journal* informed on everything of

any importance that was going on, and our county medical societies, if any of them have read that at all, have been aware of this proposition, have been aware of the fact that it was coming to a head, and have also been told that a speaker would be available—I requested that I be allowed to come and talk to them. I have been allowed to come to some, and others had meetings where others went, which is fine. Dr. Kernodle went to many meetings to talk to them. But this cannot be drawn out forever to wait for county societies to have meetings. They have had the opportunity.

I wonder how many county medical societies were in attendance here yesterday at this meeting with their presidents and their officers, where they could have been informed about this.

I would make this observation: If you can get the word back, as Councilors, to your county societies that if they have a desire within the next two weeks to have a meeting and to talk this thing over call Mr. Barnes if you want to; call me; call Dr. Kernodle. If we cannot go, we will get someone to go who will try to present an unbiased picture of the Kerr-Mills bill, so that any instructed delegates who come to the called meeting of the House of Delegates will come with an instructed vote based on an adequate knowledge of the bill, and not on some prejudicial thought that has been expressed.

First, does anyone else as a member of the Council desire to talk to the proposition as expressed by Dr. Spigner and Dr. Kornegay? All right, we are then in a position of moving to discussing the proposition of participating in vendor payment services, professional services, for and under the Mills-Kerr Act.

Now the last time this Council met, it reaffirmed its action to authorize vendor payment participation in MAA and OAA, and the various accessory organizations of OAA. Dr. Kernodle, in his discussion this morning, and undoubtedly we will discuss that some more, requested or gave the recommendation of the Chronic Illness Committee, which is charged with recommending to this Council, and through that to the House of Delegates—requested that we reconsider the matter

of vendor payments for MAA and OAA, which we have passed at a previous meeting.

The floor is now open for discussion on this subject.

Dr. Koonce: As I understand this Kerr-Mills bill, it is purely and simply for indigent patients. Is that correct?

Dr. Kernodle: Medically indigent patients. There is a gray zone above the indigence.

Dr. Koonce: I think one of the biggest troubles with the medical profession today is that they are in a class with everybody else, that they want to get the Government's money as best as they can. The best thing we can do at the present time is to drop the medical payment for medically indigent patients. We certainly would put ourselves in a good position. I think it is the obligation of the medical profession to treat indigent patients just as much as it is the obligation of society as a whole to furnish them with the physical facilities of medical care, and we would be a lot better off if we did not go into this vendor payment.

President Johnson: May I clarify one thing right here, so that we would all be thinking along the same lines and have no confusion.

When I am talking about not accepting vendor payments, I am not talking about having the Welfare Department in Sampson County sending me a medically indigent patient with a note that "We have adjudged this person medically indigent, and you shall treat him for free."

I am talking about the fact that we do not participate in taking vendor payments, but that we, as individual physicians, knowing perhaps better than anyone else the economic status of our patients shall make our own determination of the indigency and the degree of indigency of these patients, and shall treat them in the manner in which we have done it, with the same financial arrangements by which we have been participating in this program as a medical society since time forever.

Now that is what we are talking about. We are not talking about doing it for free with the Welfare Department, or any other agency, saying that this is a free patient,

and you have got to treat him for free. We are doing that with our own judgment. Other discussion?

Dr. Paschal: Mr. President, I have got a different opinion about this now, with the figures that have come to hand regarding those that are probably eligible for such care.

In the beginning it was pointed out earlier—and I mention it now only to emphasize it—we were talking about 185,000 to 200,000 people in North Carolina that might come under the provisions of this legislation, and under further study that was reduced to 85,000, and later figures reduced it to 65,000; and now, in any one given year, it is probable that only about 5,000 to 12,000 will require such attention.

It doesn't seem to me that that is too big a burden for the doctors in North Carolina to take upon themselves. It is something we are doing already; and as Dr. Koonce says, why, participating without requesting vendor payments I believe adds to our position, and I would be in favor of it.

Consequently, I make a motion that we do not make the request for vendor payments at this time.

Dr. Sams: There is a former action.

President Johnson: Are you making the motion?

Dr. Paschal: I make a motion that we do not ask for vendor payments at this time, that we rescind former action.

Dr. Sams: I would like to second that motion with this additional thing: This thing has been with us since I have been in medicine. It has never been turned out and it won't be now. They have made a bugaboo of the thing.

Here is another thing: Let us not let our legislature have to go before the Appropriations Committee to have to ask for an appropriation for us for this thing; and let us say the doctors are asking for \$10 for every time they want to see a patient. We have always done that, fellows, for nothing, and let us rescind that action and not ask for any vendor payments at all. I don't think we will be any worse off.

President Johnson: Thank you, Dr. Sams. Now I don't want us to rush precipitously

into passing a motion. There is an awful lot of thought to be given this, and I don't want us to wake up tomorrow morning after tumbling a little tonight and giving thought to this thing and say "Have we done something that isn't right?" There is much to be said for the other side of this, and I have a very close neighbor who thinks and has background for thinking—he has worked with our Committee to cooperate with the Welfare Department of this State, advisory to the Welfare Department, and I think mighty highly of his opinion, and I would like to personally ask Dr. Brewer to talk to us on this proposition.

Dr. Brewer: President Johnson, Members of the Executive Council, and other interested Persons: I was in hopes that I might not get involved in this thing today, because I think my thoughts are pretty well known. In order to talk to vendor payments and the implication of the Kerr-Mills bill, I would have to go back a little and preface my remarks by saying a few words about the progress of social thinking over the last several generations, centuries ago, perhaps.

I think that it began in this country with the movement for public education. At that time, there were vigorous exponents of the theory and the idea that education was only for the benefit of those who were in good financial and economic condition, and that the masses had no business having public education, and there is where our social thinking in this country perhaps spread to Western Europe and other parts of the world began.

Well we have come on down a great deal from that. We came on down to the time of Aycock regarding education, when he came forth with the idea of equal opportunity of education for every child. This is conflict of ideologies and philosophies in social change which is not confined to us here. We have had it always.

With these few remarks, I think it is time that we doctors bring our social thinking up to modern times, to accept and try to implement the social thinking of our day, instead of always being obstructionist.

For years, we have here in this Medical Society, I know, and I can prove it in other

states, been talking about this great group of indigent people who are able to keep body and soul together so far as food, shelter and clothing was concerned, but when they got sick, had doctor bills and hospital bills, they were unable to meet them, and they were thrown for a loss. We wanted some way that we could help those people. We wanted to do something.

Last summer came the Kerr-Mills bill which was presented to the United States Congress in an answer to take care of the needy people, because the doctors said that the Social Security approach was wrong, because it also took care of those who were able to pay. So the friends of medicine, and the opponents of socialism, came forth with this proposition known as the Kerr-Mills bill, with Federal grants to assist states in taking care of the medically indigent person over 65 years of age. That was a broad bill. It was so broad that any state could do almost anything it wanted to under it. It is broad enough to take care of those people who are on Social Security, but who are in need.

Now the question arises, you heard Mr. Foristel say here this morning that unless we can at least 25 or 30 states by the early summer to implement this bill, that the Congress is going to turn to the Social Security approach, and Lord knows, and you all know, that when you go into the Social Security approach, the opportunity and the means for extension into socialized medicine is unlimited.

They have given us an opportunity here to participate in this. Do the doctors want to participate? Do they want to implement this bill? This is the Medical Assistance Bill. That is the name and what it implies, medical assistance to the aged. It is not a local program at all; it is just assisting these old people.

I maintain if we don't go into this thing and accept some vendor payments, then the Medical Society, the doctors of North Carolina, are not participating in the program. We are not doing anything to implement it. The fact that we allow hospitalization is not us implementing the program; that is the hospitals implementing the program. So if

the doctors want to participate in this thing, let them implement the thing by accepting vendor payments.

Mr. Barnes came up yesterday with a report about 70 per cent of the contracts that these other people have with doctors is at-home and office visits. That is about all, you're thinking. You are thinking about your community. You think more than one out of every four or five of the older people that you know have to go to the hospital during any one year? They don't. So if you are going to assist these people, you are going to have to do it through assisting them in the majority of instances in which they contact physicians, which is through home and office visits. If we do that, then these people—and they have become a great pressure group in this country, and with their children can become the greatest pressure group that this country or any country has ever seen, and one whose influence on the Congress and on its legislative bodies cannot be successfully opposed.

When you accept vendor payments, you are saying to these old people "We doctors are going with you this far." One reason the people in Washington put in this provision that home and office visits could be paid—a little dental service could be done; drugs could be paid for; ancillary services, such as X-ray and laboratory work could be paid for. It is to stimulate these elderly people to go to the doctor early in their illness before they have become severely sick, so that they have to be referred to the hospital. It is a program to help keep people out of hospitals.

If he is going to get a few of his visits paid by the welfare agency, he is going to the doctor early. The doctor may be able to obviate a trip to the hospital.

That is the question, gentlemen, in a nutshell, as I see it. Do we want to implement it? If we do, let us implement so that we assist 70 to 80 per cent—70 per cent according to Mr. Barnes' figures—in their contacts with physicians.

One other word and I am through. Of course, there are other doctors that ought to be paid beside the general practitioner and the internist, who will make most of these

home visits and do most of this office work. But politics, as you have heard me say before, go into this. We cannot go to the North Carolina Legislature. The Welfare Department is going for us. The Medical Society is not going before any legislative committee asking the doctors to be paid. That proposition will go in in a body with the welfare appropriations requested in order to implement this program. It will be listed in there so much for doctors. But we don't have to go there as a body to do it.

Some of you heard me say yesterday—and I remember the time when the widow came for somebody to kill hogs, and for a day's work, she went down with some worn-out shoes, a sack of old potatoes, and that was her compensation. Those days are past, and let us as doctors recognize it and approach this thing that these people may have some dignity in their approach and their seeking of medical service.

Dr. Schoenheit: Mr. President, I am just as confused as the little boy that lost his chewing gum in a chicken house. If we implement this Kerr-Mills bill—I have been inclined to go along with the recommendations of our President and Dr. Kernodle, and I have been afraid that if we went into vendor payments we might lose out.

Now along comes Dr. Brewer, whose judgment I respect very much, and he says that that is the best alternative. I want to be clarified a little bit more on that.

President Johnson: First, I want to thank Dr. Brewer for presenting as nice, a concise, and well-thought-out expression as I have heard in a long, long time, and doing it extemporaneously. He didn't know he was going to be called on. He knew there was going to be some discussion here.

But if I were judging the feeling of this group a while ago, we had a motion on the floor and we were fixing to act on this motion without, I thought, sufficient discussion of it, and everyone being aware of all of the ramifications that were involved in the act that we were fixing to take.

I want to clarify in the minds of any of you who do not know Dr. Brewer as well as I do—my practice has overlapped with his, and we see each other all the while. I take

care of some of his patients when he is away, and this year he has been taking care of many of mine when I was away, which was a major portion of the time.

That was not the expression of a Communist, a Socialist, or anyone who is out in left field. That is an analysis of a very real situation; so don't one of you go away from here and say that Dr. Brewer is a Socialist, or a Communist, or even has trends that way.

I cannot see eye to eye with him. We have discussed it at home. We discussed it yesterday in front of the Conference, which was held here.

I have very definite feelings that now is not the time, if indeed there be a time, to ask for vendor payments under this program; that there are certain things running presently, even though we all agreed with the philosophy that we should ask for vendor payments, and there was a time not too long ago, if those of you here read the articles that I put in our state magazine, when you could interpret, without much reading between the lines, that I felt that we should ask for vendor payments, and good and adequate vendor payments.

I have a feeling that it is more a matter of timing right now; that if we participate in this program not as active participants in the Mills-Kerr bill, but do a real good job on an individual basis of taking care with dignity of those patients who need help and cannot pay for it, permit those who want to give us a dozen eggs, or a chicken, or a ham as payment, to do that. I maintain that there is an element of dignity to that. It shows a willingness and a desire to do something for one's self, which is not without its values.

That if we participate in this bill, in the manner which was outlined under the motion on the floor, that there is a possibility that we might roll the waters back, so that this bill would, I would hope in the not-too-distant future, not be necessary. There are other mechanisms to take care of this type of a problem in a civilized democracy, and that it might well be that it is factual, I believe, that the OAA program as to those on the roll in North Carolina, and other states, is grad-

ually declining; that we have less people on OAA presently than we had on it ten years ago. Is that correct? Or five years ago.

Mr. Barnes: Yes.

President Johnson: And that there may well be, with proper thinking and proper cooperation, under the participation without vendor payments, an opportunity to roll back and make it unnecessary to have vendor payments for this sort of a service.

My main argument at the present time is that the timing is not right to request vendor payments if, indeed, as Dr. Brewer says, we are coming to a welfare state type of taking care of the medical needs of everyone—if the Government, and those areas of Government agencies in Washington whose philosophy is that the right to medical care is indeed a right of all people, as a service of the Federal Government—this 65 and older group being just the camel's head under the tent. If that comes, then indeed we are entitled to vendor payments, and we are entitled to adequate vendor payments.

I have a feeling that if we were to ask for vendor payments now, that is one, we would thicken the atmosphere of discontent in North Carolina with the medical profession as an organized group.

I have a feeling, too, that anything that we got would be an unrealistic fee schedule. Whatever we asked for—and it was plainly stated that we were asking for something good, but that we were starting out with that as a bargaining point—with the idea in mind that we would, by interrelation and discussions with the Welfare Department have to give and come to some common ground of fee schedules, that we would be set up with a system of fees that are unrealistic and inadequate. And that we would then, if and when this program of welfare state medicine is foisted upon us, be sized fee-wise with every expansion with the fee schedule that we set up now. And therefore I, personally, not as your President, feel that the timing for the requesting of vendor payments is not now.

The floor is open for further discussion.

Dr. Koonce: May I say something? I had an intimation from Dr. Brewer's remarks that he was more or less in favor of token

vendor payments, so that the more or less indigent patients would feel that they were paying something.

Well I know from personal experience that the medical profession of North Carolina isn't going to accept token payments in any kind. It is going to be a full payment if we accept vendor payments.

President Johnson: Just one second. Dr. Kernodle has asked for the floor, and I would like to recognize him, and then Dr. Raiford.

Dr. Kernodle: I am not taking exception to Dr. Brewer's complete historical remarks, because he has delved into this from the Nth degree in trying to bring you up to date. I want to classify two or three points on fees.

One, there are sixty different ways of handling this fee problem, if you got into it. Some have said something about coinsurance, deductible policy, and why we didn't do this. Dr. Brewer brought up the fact about paying for the first five visits, or how many, and then you could collect thereafter. There is a possibility of paying—the ones that will work are these. Not a deductible item. They won't accept it. We have found that out.

There can be a fee schedule in which the first, second or third visits will be paid for by the patient, and thereafter MAA program will take over. There can be, as Dr. Brewer has brought out, one, two, three or four visits, and then they take over thereafter.

The other disciplines—and I am speaking mainly from the County Commissioner's standpoint, and the hospital administrator's standpoint—do not want a deductible item. They do not want a first, second, or third visit paid for by the patient, because their reasoning is (1) if the patient is admitted to the hospital, the bill is \$400; the deductible item is \$75; they will never get the \$75. That goes into no payment. They get the \$325 from MAA program. So they are in the same position as they have been all along in taking care of a large portion of these for nothing.

The County Commissioners likewise say that this is thrown back into their lap to pay at full dollar-for-dollar basis, the deficit on the hospital program.

You collect your money for the first few visits, and then they go into the hospital

and they don't have anything to pay for the additional visits. All of these are factors.

Mr. Foristel said that this should be implemented, and I think it should be implemented soon. We as doctors are not right to suggest any fee payments, in my mind.

Dr. Brewer brought out the fact that we would not be participating. I took the opportunity to wire Chicago and find out what their thoughts were on the lines if we omitted this from our program. They think that it is an excellent idea for us to not participate in home and office visits if our doctors are not in unison in what they want to collect and put up as fees. Second, it will be considered full implementation of the bill, because the bill is in two parts for implementation: Institutional care, non-institutional care. The non-institutional care would be drugs, out patient, ancillary services, X-ray, laboratory, and so forth. That would be included where the doctors would not receive any compensation.

As brought out by Dr. Koonce, the other most important part, the legislators and the newspapers will be right up on top of us if we go in there with realistic fees.

Dr. Raiford: Mr. President, I would like to review very briefly my consideration or conception of the thinking of this group on November 28th, and to me this business of vendor payments is a total reversal of thought. At that time, my feeling was, my sensing of the feeling of this Council was—and please correct me if I am wrong—that this is a form of medical practice which we did not ask for but are willing to go along with, if it seems the best thing. It is paid for by tax monies, ours as well as anyone else's, and therefore if it were implemented, that these patients became wards of the Federal and State Governments, and we therefore are entitled to receive a portion of the compensation.

I cannot quite sense the reversal of feeling. We have precedents in other states, as Mr. Foristel said. We have not heard that that has worked any great catastrophe on them. Other states—Kentucky did not have it. I would like to know how it works.

The next thing is, the danger of this as I see it, setting a precedent, because we are

embarking for the first time on a Federal type of medical care, and if we go into this without requesting or accepting a vendor payment for our professional services, in the next step we will be expected to do the same thing; and if it should be defeated and changed, and go into the Kennedy Bill, or any similar bill, is there any reason to expect that we would not donate our services for that? Where is it going to stop?

As George pointed out, and I agree with him, when you get down to the figures as pointed out in this State of 85,000, that is a very small amount; but suppose it is 850,000. It isn't a matter of quantity, actual quantity, but of precedent as to how you are attacking a certain problem.

And the final point that strikes me rather strongly is, we have always been and are still asking for free choice of physician. In some of our communities, like yours Mr. President, you have your certain following. Some are indigent; some are non-indigent. In a larger community such as ours, the indigent patients are cared for by the free clinics, welfare clinics, and by those of us who take service a month at a time, and whoever comes in and is classified as an indigent patient, he comes into the hospital or into the clinic, gets the doctor who is on service at that time, and not his free choice of physician.

I think if we keep these people on a completely indigent basis, so far as our professional fees are concerned, it is not going to permit the free choice of doctor. I know there will be quite a few unhappy people up in the Western part of the state if we don't do this.

President Johnson: As a point of information, as a point of argument, may I just throw out these thoughts since you addressed them to me?

One is that under the Kennedy-King type Social Security implementation of medical care, there are no fees set up for professional services at all. That would be in keeping with just exactly what we are doing presently.

As to the precedent as it occurs to me, we are not establishing or changing a precedent. We are continuing what has been done,

be it right or be it wrong. All of the history of medicine up to the present time indicates this.

As to the business of being in the metropolitan area and to the outpatient clinics, I don't know that there is any very real answer to the problem, and I question whether a small token fee schedule would change the structure and set-up of the services offered in your outpatient department. Actually, if a paying patient, if a millionaire walked into an outpatient clinic with an emergency in Charlotte, or Asheville, or wherever, he would get the doctor on call also. Would some of you enter into this discussion and express your opinions?

Dr. Paschal: It was my understanding, and my motion was made on the basis of that, that this has to do with that at this time, and it doesn't make a decision for the doctors in North Carolina for all time ahead. It could be reconsidered at a later time, and if after the thing is implemented, why, it is proper that we should have vendor payments, then we can make a request for them in due process.

Dr. Kernodle: Dr. Noel has some experience of setting up a token type of payment, and he perhaps could tell you about the OALR group with regard to their reaction. For twenty years, they have had a token payment.

President Johnson: I am glad to recognize Dr. Noel now.

Dr. George Noel: Mr. President, I will just say a little more than answering that question of John's and get my comments over at one time. I think they are all pertinent to this discussion here.

We, as officers of the Eye, Ear, Nose and Throat Society, and I also happen to be chairman of our State Society committee, became concerned about this problem in October and November and arranged first of all a conference with Dr. Winston and Mr. Wood on December six, and we came out of that conference not too well informed, but tremendously alarmed. We heard some things that really shattered our sense of security.

We felt then that it was necessary that we try and acquaint our physicians in eye, ear, nose and throat work with what was

going on; that no committee and no officer could take the responsibility for what we were about to embark upon.

So the Committee on Government Fees, which is a function of the Advisory Committee that John mentioned here—the Advisory Committee of the North Carolina Commission for the Blind sent out a questionnaire to the 180 specialty doctors in the state asking their reaction to certain fee schedules and to certain policies, and certain philosophies.

We got something over fifty policy replies one way or the other from that questionnaire and on the strength of that we felt that it was vital that we have a meeting of our doctors.

So in January, January 15, in Greensboro, we had a called meeting of all the members of the Medical Profession in North Carolina who practice eye, ear, nose and throat, or a combination of the two. They were all urged to come, and they were given detailed information as to what would be discussed and how vital it was.

We have all the spectrum of feeling and all the variations and thought concerning this matter that is represented in the rest of our profession in the state. Our feelings are culled, of course, by several points. One, first of all, we feel that when MAA is implemented that 80 per cent, if we take Dr. Winston's quotation, of our cataract and glaucoma surgery will immediately become a function of the State of Federal Government almost. That many of the problems, eye care, ear, nose and throat problems, will then become not problems for a private practice but for a government practice.

We have the special problem that over twenty years ago, when the Commission For The Blind was organized, about twenty-five years ago, no fee was set up and we followed the tradition of this Society of having no fees. It soon became apparent to those who operated the program that while the work was done perhaps, and while the people were taken care of perhaps, the records which were sent in to the bureaucratic offices were not in evidence.

And so after a long fight over what we were going to do about getting records the

Advisory Committee and the Commission For The Blind set up a records fee schedule, called it a token fee schedule, or records fee, or whatever you wish. At any rate, some twenty years ago it was agreed upon when the record was in, the doctor would be paid two dollars for refraction, and that if he did a cataract operation, \$25—and so for twenty years we have operated on this token fee basis, and we have never, as some of you know, received one item of credit in the public press.

Our Commission For The Blind has never seen fit to publicize the fact that although it has a half million dollar budget each year for medical fees, that eye, ear, nose and throat doctors—or eye doctors in this state—contribute at least eight times this amount in professional services. So that we have been, as someone said here, doing this service and we don't get any credit. We don't get any good public relations or any good will out of it at all, not on a public basis.

At this meeting we had in December, in spite of the fact that year after year we have reminded ourselves and reminded the government officers that this is a records fee, Dr. Winston and Mr. Wood both repeatedly came back to this as a basis for negotiation of fees, and we came away with the feeling that this is what we are going to be saddled with if we aren't very careful.

Now, I have talked too long already. Let me say this: the eye, ear, nose and throat doctors, if I interpret them correctly—and I cannot speak for all—on the basis of the voting and the resolutions that we passed there, feel with Dr. Brewer that the time has come when we cannot continue in the same traditional method as before. I think our eye, ear, nose and throat doctors will be happy to go along with a transitional period of no fees, but they do feel that the trends and the social implications of this bill that we are considering today are so broad that at a very early date, we are going to have to have not token fees, but very realistic fees. I hope I have covered your question.

President Johnson: Thank you, Dr. Noel. Actually, those of us who have studied this

problem at great length — Dr. Kernodle's committee and those of the others of us of your officers who have been present at a lot of discussions—realize the position that you are in.

You were literally trapped into a very small piece of cheese for services rendered. I do not believe that your society of ophthalmologists would be very happy with a different system of token fees given under a different service, under MAA. I do not believe that you would be happy with an unrealistic fee schedule there either, would you?

Dr. Noel: No, we would not be; neither would Dr. Winston. One of the things made clear at that December meeting is that whatever evolves out of MAA, there is to be one schedule of fees, on schedule across the board. We cannot have two or three schedules.

President Johnson: That is true.

Dr. Beddingfield: Dr. Johnson, after talking to a few people who are going to make the laws for the state in Raleigh, I would like to mention two items of practical politics that I think will shape the pattern of things that come in this.

First of all, I think that the Mills-Kerr Bill is going to be implemented in North Carolina, whether this Society has any part in it or not. I think that we have two possible courses of action.

We can play a hands-off policy and say that we don't believe in this, that this is too socialistic for us to swallow, and watch it be enacted.

We could dispense with vendor payments, but try to shape the type of legislation that Dr. Winston and her group steers through the legislature by exerting appropriate pressures in appropriate areas. Try to leave it open so that if things did expand in one year or two years, they try to bring more people into it, that they could at that time ask for vendor payments on a realistic fee schedule basis.

I believe that legislatively that would be the best course for us to follow at this time. It has been alluded to, and I would like to express the legislative and public relations difficulties of the shoot-for-the-moon philosophy with high fee schedules at this time

of \$20 for the first office call. I shudder at the public relations impact of that.

One other point of practical politics is this: This legislature with an ambitious program that our governor has in other areas is going to be ery, very short of money; and if we ask for anything like a realistic fee schedule, we are, I think, going to be laughed down.

I think that the legislature and the governor senses the demand to do something for the aged medically indigent. I don't think they have any real illusions as to the extreme magnitude of the need in North Carolina, but the governor and the party in power have committed themselves to do something. I think they want to do something, but probably let it cost as little as possible. I would just like to point out those facts of practical politics.

Dr. Raiford: I would just like to ask one more question about this: You speak about timing, and that is the thing that worries me. I am completely undecided about this thing, and I don't know what to believe. But if not now, when is the appropriate timing? Would it be any easier a year from now, or two years from now to ask for vendor payments than it would be in the beginning?

President Johnson: I have a feeling personally that if this program is a going proposition, if we cannot—and I think ideally, that is a sort of a naive wish, but I think ideally if we could work as hard as we could toward directing the atmosphere that is creating this thing — and it was created from upstairs down, not from downstairs up—I know of no basic group of elderly people in North Carolina who initiated this. Now they played a part and participated in it after it was created, and their attention was drawn to it. But I am not aware of any basic group of old people in North Carolina who initiated this thing.

But if my interpretation of the machinations that are going on in Washington—and I had an opportunity to be subjected to some right good exercises in that at the White House conference—if I interpret that correctly, and this is made into a going thing, then they—and by “they” I mean the Socialists, the social workers, the welfare depart-

ments, the politicians, the educators, will be anxious that we do participate from a standpoint of vendor payments. And when the onus for initiating the request for vendor payments comes from them rather than from us initially, then we will be in better position to say “All right, boys, you asked us and you requested us, and you more or less maneuvered us into position where we have to go along with vendor payments, or where we are going along with it, now let's get a realistic schedule.”

I think that that is the important thing of the timing with me, plus what Ed has brought out, that currently there isn't money available and the thinking of the Appropriations Committee in Raleigh. Now does that answer your question?

Dr. Raiford: Yes.

Dr. Thomas L. Murphy: Let us think about it from the problem of the patients. We have got some old folks here, most of them who out live their doctor. So they come in to a young doctor, and they are tough patients. They are going to take a lot of time. And so if we get no fee for working these patients up, they are going straight to a hospital, and it is going to cost one heck of a lot more than if they paid a decent fee to sweat it out in offices. It would be a heck of a lot cheaper for us to treat them in offices.

President Johnson: Let us get back to the discussion pertinent to the situation.

Dr. Brewer: Let me have just one more word. First of all, regarding timing, I thank you for your remarks telling these folks I am not a Communist. As you know, down in Sampson County, I am one of the hardest conservatives.

I think the time is now. If we wait on implementing this thing, we have got to wait two years for another session of the legislature. So that is that.

John is right. In the eyes of the AMA, some of the people in Washington, we really don't have to put in vendor payments to get it implemented. But in the eyes of these old people who are in need, these 75 per cent that Jim Barnes talked about who make contact with their doctors—in their eyes, we are not implementing it unless we go and accept

some vendor payments, so that they may be assisted.

Regarding fees, the fee should be reasonable but not excessive, but not a token fee of a dollar or two. I don't know what is right. I know who treats most of these patients. Most of them are seen by doctors who see them regularly; they are their family doctors.

One other thing and I am through. This MAA program is a locally administered program. True the law is made in Washington and certain directives come from Washington; but in your county and in my county, there will be the determination of who is eligible to participate in this program.

It is locally administered. The Social Security (financing mechanism) program which we are going into, if we don't have something like this is going to be directed from Washington, and the determination of eligibility will not be made in Sampson County or in Rutherford County, but will be made in Washington, D. C., perhaps with some assistance in Raleigh, North Carolina, and Richmond, Virginia, and what-have-you.

And finally, don't forget, as I said a while ago, that in the eyes of these people who are the recipients, if we don't implement this thing and do something for them, we may have satisfied the AMA in Chicago, or HEW in Washington so far as that is concerned, but we haven't satisfied them, and their relatives are the ones who are becoming the pressure group in this country.

President Johnson: Thank you, Dr. Brewer. We had been led to believe, and had prepared our bill for presentation based on the belief that we could set up a committee or commission within the framework of the Welfare Department that would have real power and real control over the expansion, the withdrawal, or the setting of criteria and standards for eligibility, and really participate in setting up some of the ground rules. But we were told by our legal talent in Washington, who left just a few moments ago, that that would not be acceptable to the Department of Health, Education and Welfare.

So it matters very little to me whether we have administration out of Washington, or

administration on a local level, if the sum total and end result is the same thing. I mean socialized medicine as we think of socialized medicine, whether it be foisted upon us from Washington or from Raleigh; the end result is very little different than my thinking.

Dr. Lynwood E. Williams: I think we take a lesson from this, just as Dr. Brewer said; public education has worked well, but I think it is on the verge of Federal control. How long we don't know, and this plan is headed down the road toward Federal control, and I think we ought to bear that in mind and do what we can do to set it up so that we can live with it. I just point that out.

You start here and you end up with Federal control. We need to bear in mind this fact and set it up so that there will be less control out of Washington, as much as possible.

President Johnson: Does anyone else have an expression or thought that they would like to submit, or does anyone care to call for the question?

Dr. Sams: I think we can call for the motion. I think we have had everybody's opinion.

President Johnson: Is there anyone here who has any feeling that we are stifling discussion? Even those outside the Council? Does anyone in this room? Because that is one thing that I do not want done, and I want everybody to have an opportunity to express his own opinion, the opinions of those whom he represents.

Dr. Beddingfield: One other point about money I think hasn't been made clear.

One thing about the matching funds that everybody may not be aware of is this: Out of every \$8 in this program, the Federal Government puts up \$6, the county \$1, and the state \$1. Now the counties, it is estimated that every county in North Carolina already has these funds available, and is spending these funds on various welfare programs, particularly general assistance funds, and that this would not require new county taxes under the present concept of the law. It would merely earmark those funds as

matching funds in order to get Federal funds.

It would require some new state money, but not entirely new state money. Part of the \$1 out of the eight share that the state puts up is already available and could be made matching funds by bookkeeping maneuvers. Isn't that right, Jim?

Mr. Anderson: Yes.

Dr. Koonce: If this motion is passed, what is it tantamount to?

(Pause)

Dr. Paschal: I will move, Mr. President, that we rescind the action of the Executive Council, which was taken at the November 28th meeting, as it had to deal with vendor payments. I also move in the same motion that we not ask for vendor payments at this time.

Dr. Sams: I second the motion.

President Johnson: All in favor of this motion, all of the members of the Council who are eligible to vote, let it be known by raising your right hand.

(The vote was 13-4; 4 against.)

President Johnson: Thirteen in favor of the motion, which would discontinue the request for vendor payments; four against it.

Now we have a lot more business this afternoon, some more pertinent to his Mills-Kerr bill, so those of you who are interested in it do not go away.

Dr. Noel: This motion puts me in a spot concerning which I need some instruction, and I would like to just make a request that it come to your attention and be disposed of as you see fit. What do you want us to do about our Commission for the Blind token fees? Do you have a recommendation to us concerning them?

President Johnson: Suppose we give thought to the question that Dr. Noel has brought up and that that be the first thing we talk to when we come back at two o'clock sharp.

(The meeting recessed at one o'clock.)

Sunday Afternoon Session

February 12, 1961

The meeting reconvened at two-five o'clock, Dr. Amos N. Johnson, President, presiding.

President Johnson: A quorum has been declared and we can start.

Dr. Noel would like to talk to us.

Dr. Noel: Mr. Chairman, continuing the discussion we got just before lunch — our Government Committee has placed a copy of the resolutions we passed at the Greensboro meeting in your hands. I want to particularly invite your attention to the first one: That eye physicians request that they be included with the rest of their colleagues in the practice of medicine, and that they be dealt with in contractual matters on the same basis as other members of the North Carolina Medical Society.

Number two: We herewith request the State Medical Society that in setting up a schedule of fees for medical services, it carefully consider the Relative Value Fee Schedule currently recommended by our North Carolina State Medical Society Blue Shield Committee, whose Chairman is Dr. Jacob Shuford of Hickory, North Carolina. We request that a representative of the EENT group be appointed to the Blue Shield Committee.

Number three: That we, as a group, go on record in recommending to the North Carolina State Medical Society that one schedule of fees for all Government agencies be established as soon as possible.

Number four: That this group go on record as requesting the North Carolina State Medical Society to name a private agency governed by medical doctors as its contracting agency in dealing with vendor payments to the medical profession.

Number five: That this group recommends that the legislation to be enacted by the North Carolina General Assembly provide medical assistance to the aged be restricted to medical doctors and dentists.

We realize of course that within the medical profession, each man is to a large extent his own boss, and his own agent, and the rulings of Council and the rulings of the House of Delegates are in some degree always recommendations rather than absolute legal requirements.

Nevertheless, we feel that we would like, as Executive Officer both of the State Medical Society Eye Care, and as the Executive

Officer of the Eye, Ear, Nose and Throat Society—we would like a recommendation or a statement of policy from the Council as to what they would wish us to do about this schedule of token fees from the North Carolina Commission for the Blind.

President Johnson: Does anyone care to express an opinion as to their token fee predicament?

Dr. Koonce: I move that the sense of this Council is that they would be within their rights entirely if they said that as of a certain date, we will participate in taking care of these people in the same manner in which others in the Society take care of their particular medical problems; that we will discuss it with each individual patient and act accordingly, that they be notified that it is the opinion of the Executive Council that they would be perfectly within their rights.

President Johnson: Is there a second to this motion?

Dr. Harry Johnson: Second the motion.

President Johnson: Does anyone care to discuss it? Those in favor say "aye"; opposed "No." It is carried.

President Johnson: We now go back to some more action that needs to be taken on the proposed bill for the implementation of the Kerr-Mills Act in North Carolina.

The next thing is the matter of the eligibility phase of the thing. John Robert, would you talk to that briefly?

Dr. Kernodle: As pointed out earlier, on November the 28th, we discussed the possibility of eligibility requirements for the means test being based somewhat similar to that of the Minnesota group, and set up some tentative figures of \$1,000, individual income per year; \$2,000 for a family; \$7,500 net worth; and \$1,000 liquid assets.

Dr. Winston and others felt that that was a very good base to start from. She later put into her request to the Budget Advisory Committee that \$1,200 would be the salary income, in conjunction with the other basis.

In talking this over with the other disciplines, and for those who don't recall what I mean by that—the dentists, the hospital administrators, the druggists, and the county commissioners—it was felt that perhaps a more flexible eligibility requirement should

be put into the broad base bill, and that the actual definitive request for eligibility should be left to the Advisory Council, and to the Welfare Department on the state and local levels; that that would give more priority and more thinking of the local county commissioners with the Local Board of Welfare.

Because of that, and because also Dr. Winston felt strongly that that should be in the broad base bill, we felt that the flexibility would be in order.

Now again, we are not accepting the request that was made on the Executive Council on the 28th when we came back to you with this proposal. The wording has been taken primarily from the Kentucky bill, and John Anderson can give you the exact words on that, as he has the bill at hand. It hasn't been reprinted in sufficient quantities to pass it around to you. I am sorry—we have changed this wording in the last week, but that is a flexible standpoint that we are recommending at this time, that the central bill be asserted, or the amendments to that bill that have been introduced by Dr. Winston and her group include such flexibility as he will give you.

Mr. Anderson: Eligibility is defined as a person who is 65, and so forth, and who has no means, funds, or resources available to provide himself with essential medical care without depriving himself of necessary food, shelter, clothing, or the other necessities of life.

That is essentially the Kentucky bill, the wording in the Kentucky bill, with the exception that we have inserted the word "available," instead of using the language "who possesses no means."

Dr. Kernodle: This gives a flexible means. It doesn't say everybody within a certain maximum income, or a certain income will be given the right for MAA assistance immediately. It means it is individual determination on the local level by the County Board of Welfare. That is the whole point of the motion.

President Johnson: Actually, this takes away the right, by putting a blanket over a group of people, by a means test composed of financial things, such as \$1,000 income for one; \$2,000 for a man and his wife;

\$1,000 liquid assets; \$7,500 total worth. That then would blanket a group of people, and would give them the right to medical care under that from here on in.

This thing being flexible like it is keeps it from being a right, but is a service which they can get if they prove—it gives a more realistic evaluation, I think, of the matter of need. They get the service on a basis of need and not as a right. The one thing that occurs to me was brought out by Ed Beddingfield, who isn't here now. Since we have found out that we are not going to have, or the chances are we are not going to have the control we might give a little more thought to which would be best. I still think that there is enough possibility that we will have some measure of recommendation control in this Council, so that we will still be better off with a flexible type of means test, than with a cut-and-dried financial one. Who wants to talk to it? Do I hear a motion that we rescind the means test as was approved by the Council at its last meeting, and accept this flexible definition?

Dr. Sams: I so move.

(The motion was seconded by Dr. Garrison.)

President Johnson: Discussion? Does anyone have a question? All in favor say "aye"; opposed "no." It is carried.

Now we want to discuss with you a minute the proposition of the modified Advisory Council as it now appears it will be. John Robert, do you now want to say a word or two about that?

Dr. Kernodle: Several questions have come to me during lunch with regard to this Advisory Council. We originally came to you with a thought that it should be made of components that were going to be purveying the services.

Therefore, we recommended at the meeting on November the 28th, after considering the overall program, a committee be made up on a broad base, that we anticipated that the preponderance of the membership be doctors, and that the Medical Society be in position to recommend a group of people, a group of doctors from which the Governor would select. But our attorney tells me later, as does the attorney for the Dental Society,

that that is not in good standing or in good keeping with our Medical Society program; that it would not put us in the best light to have such a strong position with this committee, and John Anderson will talk to that, too.

Mr. Anderson: The proposal is that the Council for Medical Assistance for the Aged be established composed of eleven members, and composed of the numbers Dr. Kernodle told you this morning.

Now we have one question as to whether two members should be selected from the public-at-large. We could make a board of nine with representation on it of three doctors, or as many as we can get on it, one pharmacist, one dentist, two members who are actively engaged in the administration of a community general hospital in the state to be appointed by the Governor, and provisions made for staggering the terms, the terms to be six years, ultimately, two-thirds appointed for two years, one-third for four, and one-third for six initially.

Now that is the composition of the proposed council. The dentists would oppose that provision because that makes them a quasi-state agency, they are afraid, and they are proposing to abolish their right to elect their Board and make it elected by the dentists.

Now they don't want to get into the same error that they are trying to get out of. I don't see a chance of our getting it just for the medical profession.

President Johnson: As I understand it then, we have got a proposition of creating a board. Does anyone have a motion or pertinent thought?

Dr. Paschal: Do I understand this is just a recommendation?

President Johnson: This is a recommendation.

Dr. Wilkinson: I move we make it a nine-member Council.

(The motion was seconded by Dr. Bridger.)

President Johnson: Discussion? All in favor say "aye"; opposed "no." It is carried.

We are not entirely through with that committee yet, are we. We have got a little problem as to how far we should go in try-

ing to find out the exact extent to which this committee can have authority.

Mr. Foristel told us yesterday, and put the damper on us, that the Department of Health, Education and Welfare, had already acted on a similar bill in Georgia.

If it meets with the approval of this Council, we shall pursue the idea of going as far as is feasible and practical without involving law suits or anything of that kind to really find out. Let us just not be naive and accept an offhand ruling from somebody from the Department of Health, Education and Welfare, because it is reasonable to believe that they are going to try to keep everything under their control as best they can. Do I hear a motion that we pursue this as far as feasible?

Dr. Sams: So moved.

(The motion was seconded by Dr. Bridger.)

President Johnson: Discussion? All those in favor say "aye"; opposed? Carried.

Anything else pertinent to the Mills-Kerr bill? All right, that is really fine.

Now we will go to the report and recommendations of the Committee on Constitution and By-Laws.

Dr. R. D. McMillan: President Amos, Members of the Executive Committee and Council: First, I want to talk to you about the Constitution. There is one paragraph here, Section 6, Article IV: This Section 6, Article IV, was enacted, was introduced at Asheville in 1958, lay on the table a year, was ratified in 1959.

Life Members shall consist of those physicians who have been members of the Society consecutively for 20 years and who have attained the age of 70 years. They shall be exempt from all dues and assessments and shall be entitled to all the privileges enjoyed by active members in good standing except the privileges of holding office and receiving the *Journal*. The time of a member's service in the Armed Forces of our country except on a career basis shall be considered as continuous membership in the Society.

What is bothering me, folks, about this is that these folks who have been members for twenty years, and who have been made Life

Members, are cut off now from what you have all enacted, from receiving the *Journal* or holding office.

I don't think that is right. I think we should delete that. If they obtain life membership, they ought to be entitled to hold office and certainly receive the *Medical Journal*.

President Johnson: Does anyone object. Anyone want to talk to it?

Dr. Paschal: It wouldn't be any burden on the Society?

President Johnson: Dr. Rhodes expresses the opinion that it would make very little difference financially.

(A motion to delete was made by Dr. Garrison, and duly seconded by Dr. Reece.)

President Johnson: Discussion? All those in favor say "aye"; opposed "no".

Dr. McMillan: That is all I have to bring before you.

But, Mr. President, I am still on the agenda for the next item, I believe.

President Johnson: Go ahead with it.

Dr. McMillan: I want to talk to you folks about the Medical Society History. You know this has been a stupendous job, and it still is; but I want to tell you that I am just highly gratified at what is being accomplished on this Medical Society History.

I don't know if all of you remember, but I appeared before you last June and was telling you all what I was trying to do. For instance, the history of medical education in North Carolina. We have got part of that report already received, not all of it, but we are accomplishing something.

The history of public health in North Carolina. That has taken a lot of time, just a lot of it. There is a lot of research going into that, the history of public health in North Carolina. I haven't gotten that report completed.

The history of Blue Cross and Blue Shield: We have gotten a report on the Blue Cross, but for the Blue Shield I haven't gotten it yet. They are still working on that.

The history of the Medical Care Commission: That contains a lot of work, a lot of research, and we still haven't gotten that.

Then the next one is the post graduate work in North Carolina. I have gotten that

completed. I have gotten the history of the Academy of General Practice completed. I have got the history of Board of Medical Examiners completed. I have got a history of the x-ray work in North Carolina completed. I have got the history of obstetrics in North Carolina completed.

I have got the history of the Medical Society on a county level—I haven't gotten that yet. I have gotten some of it.

The history of early tuberculosis in North Carolina: That is completed. I have got the history of surgery in the making. I hope to be able to get that completed some time this year. I tell you, it is a long-range proposition and a lot of research on that part of it.

The history of Auxiliary Medical Society I have got; and the history which I have added this year, the Pioneer Hospitals in North Carolina—now folks, that is going to take a long time. It is going to take at least two years to get that worked out. I am trying to get this on the level of the early history of the hospitals when the doctors, the surgeons, had to own their own hospitals and do all the work themselves, pay for everything that was concerned with hospitals.

That transition period when it was carried over to where they had a board of trustees, and it was taken over, by which they had a new foundation and so forth, and then later from another transitional period when they got to Hill-Burton funds, which is requiring a lot of trouble, and a lot of work and a lot of research.

What I am getting at is this: I just hate to go out and ask these fellows to do all this research, do all this work, and pay it out of their own pockets. For instance, this history of the Blue Shield and Blue Cross. I just want to pass this down to you and let you see with your own eyes what a wonderful piece of work that Bill Hart has done on the history of Blue Cross. He is still working on the history of the Blue Shield, and it has taken a tremendous amount of money out of his own pocket.

What I am really getting at is that I have just got to have some money to carry on this work. You all allocated to me a year ago \$300—I believe that was it—or maybe \$350.

But that is not enough to do what I want to do, because Bill Hart has spent more than that in his work. There is Hubert Haywood with the history of public health, which is going to take at least that much.

In other words, I have got five sub-committees, and it is going to take a lot of research, and I have got to have a little money to pay these folks with. They are paying it out of their pocket. I don't feel like asking these fellows to go ahead with what they are doing without being able to reimburse them. I didn't use this \$300 last year, but I would like to be able to tell these folks that with five of these committees for '60-'61, we could allocate \$100 to each one of them, which would make \$500.

Mr. President, I would certainly like to have an expression from the Society as to whether we can do that or not.

(Such motion was made by Dr. Bridger and duly seconded by Dr. Sams.)

President Johnson: All those in favor say "aye"; opposed "no." It is carried.

Dr. McMillan: One other thing, and I am still asking for a little bit more money. I didn't hear the report from Wayne Benton this morning—I don't think he has made his report yet; but I want to tell you I have been connected with the Auxiliary now for the past seven years. That Auxiliary is doing more work and more good for the State Medical Society than any of the committees or the help that I believe we get throughout the state.

Now you know the Auxiliary doesn't get a thing except the work that Jim Barnes' office does for them, plus a small amount of money to help put on their program at each annual meeting.

But these presidents—and thank goodness for the past few years, including this year with Helen Hitch, she is able to do this work herself; and if you know what I know about this work, it is a tremendous responsibility, and there is a tremendous amount of work.

Those girls are really putting out a lot of work, and I would like, if it is at all possible, Mr. President, to see that this Auxiliary receive a certain amount, either a small amount, to employ a secretary. So far they

have been able to carry on, and I think possibly next year—I don't know the incoming President-elect too well, but I am sure from following her husband and meeting her, she is really capable. I know that. But it is going to put a lot of work on her, and if we can get a certain amount allocated with which they can employ some clerical help, with all due respect to Jim Barnes and his office, they have done a tremendous amount of work. I know that is true, but they cannot keep on doing it with the tremendous amount of excess work that Jim Barnes has to do, plus the Auxiliary work he is doing, and I certainly would like to see them augmented to a certain extent.

President Johnson: What extent?

Dr. McMillan: I thing you ought to have at least \$50 a month.

President Johnson: Do I hear a motion that the dues be raised and that \$50 a month be allocated to Dr. Wilkinson for his wife as secretary?

All joking aside, does anyone care to talk to this? Does anyone care to make a motion?

Dr. Shuford: In trying to obtain this goal, I certainly think that it had been envisioned that perhaps some high school girl typing after school would help a lot in conducting the business of the Auxiliary, and that is what this money was intended for, not a full-time employee, but additional typing help and clerical help to assist the president of the Auxiliary with her numerous duties. I would certainly recommend that some allocation be made for that use.

Dr. Sams: Mr. President, I move the allocation to the Ladies Auxiliary of the State Medical Society of some \$600 for the year, \$50 a month, what he asked for.

Dr. Koonce: I make substitute motion. I move that we, at the request of the Auxiliary—let them request it first—

This year they didn't need it. Next year they may not need it. At the request of the Auxiliary, we allocate not more than \$50 a month.

Dr. Sams: I will accept that and second the motion.

President Johnson: We have a substitute motion which has been seconded by the

maker of the original motion. Is there further discussion on that? Does everyone understand the motion, that upon request they be allocated not more than \$50 per month? That was the motion. All those in favor say "aye"; opposed? It is carried.

Dr. Johnson: That is for a secretary and assistants.

Dr. McMillan: That completes my report.

Mr. Barnes: There is one other item.

In Chapter 4 of the House of Delegates, Section 8, it reads as follows: "It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body, in such a manner that not more than one-half of the delegates shall be elected in any one year."

President Johnson: We don't have to settle that necessarily here today. Let us ask Mr. Barnes to make himself conversant with the background of this, and with the Constitution and Bylaws of the American Medical Association, as it is pertinent to this, and report it to you as Chairman of the Nominating Committee; and if there be a conflict, at the next meeting of this body, we will straighten it out. Is that acceptable?

Dr. Shuford: Yes.

President Johnson: That is for information.

Let us consider problems related to the Integration of Scientific Members.

I want to speak to that for a minute or two. For some five years now, we have had a classification of membership, Scientific Membership, for the purpose of taking care of the colored physicians in the State of North Carolina who chose to join under this classification.

To date, we have two Scientific Members who occasionally come to a meeting and are seen and register in. When we set up this classification and left Pinehurst, by virtue of having two colored members of our State Medical Society, we had an annual registration of approximately 1300. Last year in Raleigh, and the year before in Asheville, we did not approximate 800.

We have a situation where we have increased our membership during this time statewide, and there would be reason to be-

lieve that under optimum circumstances at Pinehurst, our annual registration could well have been up into 1500 or 1600 here (Pinehurst), but we have a situation whereby a membership classification holding two members out of available hundreds is dis-furnishing and causing undue hardship (in attendance) on some 200 or 300 people, and we have been carrying this situation in status quo now for four or five years, searching around for a manner or a means of facing this problem and solving it.

Dr. Sams: Mr. President, I made the motion a year ago that we wipe it out, and I am going to make another motion that we do away with it entirely. I think we have fooled with it long enough.

Dr. Beddingfield: I would offer as a substitute motion that the committee empowered with this problem be requested to get together and bring us up to date on their thinking in Asheville? Any recommendations that they could get together as to how we might remedy this situation?

Dr. Sams: I didn't get a second to mine.

President Johnson: Anybody second that?

Dr. H. L. Johnson: Seconded.

President Johnson: Discussion? All in favor say "aye"; opposed "no." It is carried.

In connection with that, Dr. Raiford has something that he wants to talk to, is that correct?

Dr. Raiford: Mr. Chairman, I have been requested to bring this application for Scientific Membership before the Council, in accordance with the Section 5 Chapter 15 of the Bylaws. This is regarding the mode of admission of Scientific Members ostensibly but not specifically stated. That rule reads: No physician shall be admitted to this Society between a date following ten days after the Annual Meeting of the Society and the date of the next Annual Meeting of the Society, except by special action of the Council.

In other words, the dates from May 8 to 18, I believe.

Now we have an application of a colored member in Asheville, and I want to emphatically state that this is not because any of us are changing our feathers. This boy is the son of an older Negro physician in Asheville

whom we feel is requesting whatever membership is available in good faith. He requested active membership. We explained to him the Constitution of the County Society and the State Society, and told him that under the present mechanism, that was not available; that Scientific Membership was available. He immediately then put in his application and sent a check for the full amount of dues for this past year, and it was submitted on August 18. The Secretary of the Society received one of the new forms which was adopted at the October 2nd meeting asking that that be refilled, filled out again and submitted, according to this Bylaw in the ten days following the state meeting.

The Board of Directors of the County Medical Society felt that this boy had acted in good faith, had done everything that was necessary and required on the date of which his application was submitted, which was prior to the change in form, and that they would recommend that this body pass favorably upon him for this reason: that if he was delayed until ten days after the state meeting, the NAACP would have a choice bone to chew on. Further, stating this Bylaw refers to all doctors, not scientific, not active. It wouldn't be a very difficult thing for them to prove that other members, white members, had been admitted to the Society outside of the specified ten days, and I presume it could not be proved that they had been passed on by the Council.

Now I am just afraid this might leave us open in the matter of discrimination. Therefore, our Board of Directors had requested me to bring this before you for action, inasmuch as this boy, John Plummer Holt, a colored male physician, born in 1921, graduated at Morgan State Hospital and Medical College, trained at Hahnemann County Hospital, in Westchester Hospital, and having fulfilled all the requirements, having been sponsored by three members in good standing and passed by the Board of Censors, be favorably acted upon for Scientific Membership, and certified by the County Secretary

President Johnson: Do you want to make a motion?

Dr. Raiford: I would move, Mr. President, the Council favorably consider the proposal

of John Plummer Holt for membership as a Scientific Member in the Society.

President Johnson: Do I hear a second to this motion?

(The motion was duly seconded by Dr. Schoenheit.)

President Johnson: Now the floor is open for discussion.

Dr. Paschal: Mr. Chairman, is it not true that we, as the Council, approve the action of the Local County Society in accepting this man as a member?

Dr. Raiford: This is also certified by the Secretary that this man was elected to membership of the County Medical Society on July 11, 1960, certified by the Secretary.

Dr. Sams: That is what I wanted to know.

It has always been the custom of the Council to go along with the County Medical Society, as long as they are in line.

President Johnson: All in favor of the motion say "aye"; all opposed "no." That takes care of that.

We will go to Report of the Committee on Legislation, Dr. Edgar Beddingfield:

Dr. Beddingfield: Dr. Johnson, a lot has been covered already in discussion about the Mills-Kerr implementation. One or two items about Mills-Kerr that I would like to have clarified, as far as legislative strategy goes, for Mr. Anderson and myself:

If in our telephone conference with Mr. Foristel and the people from HEW tomorrow, it appears that by proper wording we can get a Council within the Department of Public Welfare that would give us some power over this State's implementation of the Mills-Kerr Bill, and we try to pursue that perhaps by offering an amendment to the legislation sponsored by the Department of Public Welfare, I can foresee very easily a situation in which Dr. Winston would not easily accept the membership of this Council as we have proposed it, with the nine members today.

We have to take what we can get, not what we decide on here today.

President Johnson: We passed a motion here a few minutes ago approving this Council as a nine-man committee, a motion made by Dr. Wilkinson. Knowing the thinking of Dr. Beddingfield and his Legislative Com-

mittee, and your officers who will be in charge of this legislative work during the term of the Legislature, I do not believe it would be amiss if we had a motion expressing confidence in the Legislative Committee and the officers, and authorizing them to come out with the best thing possible.

Dr. Koonce: I make such a motion.

(The motion was seconded by Dr. Raiford.)

President Johnson: Discussion? All in favor say "aye"; opposed "no."

Dr. Beddingfield: Thank you for the vote of confidence. We won't abuse it.

On January 16, President Johnson and Dr. Kernodle and I got an appointment with Governor Sanford, and we visited with him for about thirty minutes and told him of our interest and possible implementation of MAA in North Carolina, and had a fairly frank discussion with him all about interest in having a voice in controlling this thing, and some of our possible fears if the entire program were controlled by the Department of Welfare, expressing of course full confidence in the present Commissioner of Public Welfare; but we did not know who her successors might be, and this could be a dangerous law. We were received courteously, if not enthusiastically.

He thought it was a good idea to have the discipline that we had proposed represented in the operation of the program.

We never did get any clear commitment from him as to whether it should be advisory or regulatory, but we didn't expect it. He knew nothing about the program. We were trying to get there first. He did not know, and I think this is accurate, exactly what Dr. Winston was going to propose at that time. I think we were there fastest. Whether we were there mostest, I don't know.

But he asked us a lot of questions about the MAA-type thing. And he agreed to meet with us any time the thing came up. So I think we did a little good; we didn't do any harm. Mr. Anderson, will you comment on the Pathology Bill?

Mr. Anderson: A committee of pathologists and Dr. Reece have been working on a proposed amendment to the Medical Practice Act for the purpose of defining pathology

as being the practice of medicine, and they and I have been in consultation about the proposed wording.

We have a proposal from the Pathologist Committee from Dr. Brinkhous suggesting that the Medical Practices Act be amended to add at the end of the present section this wording: "Any person practicing pathology as hereinafter defined shall be deemed to be engaged in the practice of medicine within the meaning of this Article. Pathology shall be defined as that branch of medical practice which deals with the examination of fluids, tissues, excretions, secretions, and other substances, derived from the human body for the purpose of establishing a diagnosis and prescribing and regulating treatment."

I have got a lot of other descriptions here I may not read unless you all want to consider the exact wording. It (the law) would have to be amended.

Dr. Beddingfield: As I understand it, there is no question about tissue examinations and autopsies being the practice of medicine. The question is clinical pathology, blood counts, hemoglobins, urines, and so forth; a urinalysis is the practice of medicine. It is not trying to keep the hospital laboratories from doing the same clinical pathology they are doing now. Am I not correct, Dr. Reece?

Dr. Reece: I may be naive in assuming, but I do not believe that the hospitals will give us any trouble concerning this.

As we come to the problem of clinical pathology, hospitals perform clinical laboratory procedures on orders of physicians whether there is a pathologist there or not, just as you have a technician in your office at times that may do work for you. The hospital technician does the same thing.

And I don't believe that this would interfere at all. I may be naive in assuming that attitude, but I think this defines the practice of pathology, and it should stop the problem of private laboratories, such as the one in Asheville, and two or three others, that are operated by non-professional men independently.

President Johnson: Would it be in order to have another motion of confidence in the Legislative Committee, because I don't think

we can set up the answer to it here this afternoon, if we discussed it all afternoon. Let them use their judgment as to timing, maneuvers, all pertinent to this bill.

(Such motion was made by Dr. H. L. Johnson and seconded by Dr. Bridger.)

President Johnson: Discussion?

Dr. Beddingfield: I think this, it is my thinking, off the bat, that it would pay to let the hospital people be aware of this thing. I don't think it is very smart or very diplomatic to throw a bill in the hopper by us that might affect them and that they might object to, because we are going to sink or swim with the hospital people.

Dr. Reece: I am very much in favor of telling the hospital people we are going to do this. We don't want to hide it at all. We want to do it out in the open and let them know we have this bill, and even talk to them about it. That is my immediate attitude.

President Johnson: All in favor of the motion say "aye"; opposed "no." It is carried.

Dr. Kernodle, were you going to talk to:

Position to be authorized related to General Assembly requests for Retarded Children Program Funds.

Dr. Kernodle: I was asked a few moments ago to discuss this point, with regard to the teaching of retarded children in our state system. Apparently, there has been a drive under foot during the last few months by the Association of Retarded Children in North Carolina to invite more monies and more interest by the Governor to put more money into this program throughout the school system. Governor Sanford has indicated his interest in this, and the Chairman of the Education Committee, Ralph Scott in the Senate, has indicated that he is going to introduce the bill. He happens to be from my home town. This comes from Dr. Paul Maness (Pediatrician) in my home county medical society requesting that we endorse the program.

Personally, I talked with Dr. Johnson and Dr. Beddingfield and others about this, including members of the Committee on Mental Health and the Committee on School Health, and they are all in favor of endorsement.

Dr. Paschal: I move it be endorsed.

(The motion was seconded by Dr. Garrison.)

President Johnson: Any discussion? All in favor say "aye"; opposed "no." It is carried.

Dr. Beddingfield: Let Mr. Anderson talk about the chiropody problem.

President Johnson: We have had a pitch to the doctors in North Carolina, and perhaps to the lay people in North Carolina, by the chiropodists who claim that they are ancillary service to medicine, and I would like for Mr. Anderson to talk to this for us.

Mr. Anderson: Mr. President, recently we learned that the Board of Pharmacy, Mr. McAllister the Secretary of the Board of Pharmacy, had had some correspondence with the Attorney General's Office concerning podiatrists, and we received copies of the Attorney General's ruling also concerning the extent to which a chiropodist would practice medicine.

It involved the question, could a chiropodist prescribe drugs, issue a prescription which a pharmacist should honor? And the Attorney General rules that the chiropodist could issue prescriptions for drugs, and use drugs.

Then the question became, for what purpose? Well, he ruled that the prescription, the drug could be used for the treatment of any ailment of the foot.

Then the question came up, well suppose that consisted of a shot of penicillin, or the taking internally of some drug that affected the whole system? Before it got into the foot, it had to go through the stomach or through the system.

The Attorney General rules that notwithstanding the fact that the drug would involve the entire body, if it was given for the purpose of treating an ailment of the foot, it was within his province and within his right under the law.

The Attorney General in 1955 had ruled that a chiropodist could use drugs, and he reached that ruling by this reason: In 1945 the Chiropody Act was reenacted to change the definition of chiropody. It then read that "chiropody is the surgical, mechanical and medical treatment of ailments of the foot

without the use of any anesthetic other than local."

It was changed to read "chiropody is the surgical or medical, or mechanical treatment of any ailment of the foot." So you strike out all the words except "medical," and it would read "is the medical treatment of any ailment of the foot."

Now that is the interpretation the Attorney General put on that, plus the ruling that the 1945 reenactment, or redefinition of chiropody took precedence over the conflicting part of the Medical Practice Act, which said that one of the exceptions to our law would be the practice of chiropody "without the use of any drug."

So in effect the Attorney General ruled two years ago that without the use of any drug does not apply to a chiropodist. Now he has broadened the interpretation to include giving a drug for any foot ailment, no matter what affect it may have on the rest of the body.

When you concede that a rule that chiropodists can practice medicine by treating any ailment of the foot exists, then you get right into the extent to which he can use the drug. So the upshot of it is, and our conclusion was, that the only relief that we could obtain or remedy would be clarifying legislation, going into the legislature.

Mr. Barnes: Or injunction.

Mr. Anderson: To test the correctness of the Attorney General's ruling, and that would involve an injunction by the Board of Medical Examiners against some chiropodist who is doing it. The problem is here from a legislative committee standpoint, should be try to make any effort to seek legislation on that at this session?

I bring it to you so that you could give the Legislative Committee either leave to not introduce a bill with changes, or just acquaint them with the problem—if a bill is introduced, we would get behind it.

President Johnson: What sort of a motion should we have, Dr. Poteat?

Dr. Poteat: I am inclined to agree with Mr. Anderson that it is a very dangerous think for us to go and try to legislate against somebody else. We couldn't get together on vendor payments this morning, and God

knows we couldn't get together with the chiopodists on anything.

Dr. Koonce: I move we express full confidence in the Legislative Committee.

(The motion was seconded by Dr. Bridger.)

President Johnson: Discussion? All in favor say "aye"; opposed "no."

We have on Old Business an item we will consider out of order relative to the activity of the Ad Hoc Committee relative to the Blue Shield proposition, which Dr. Shuford is chairman of, and Dr. Shuford, would you care to speak to that?

Dr. Shuford: This committee appointed to study the problem of North Carolina, and that committee has met twice—this has been reported to you before, but I will give you a little background. This committee unanimously passed a motion that a new corporation, a third corporation, be formed; namely, the North Carolina Physicians Service, medical service, to attempt to enlarge the Blue Shield coverage in North Carolina; and of course as you all realize, that involves two associations who are now selling this type of insurance, and I would just like to report that up to date, with the help of our esteemed attorney, Mr. John Anderson, the articles of incorporation have been drawn. The participating agreement for the physicians has been drawn, and the By-laws have been drawn.

Correspondence has been directed to both associations in an effort to establish a plane of negotiation, or a plane of talk, and the Hospital Care Association has agreed to the proposal of the formation of the third corporation to control Blue Shield in North Carolina.

We had an appointment, Mr. Anderson and I, with Hospital Savings on January 28, which we were unable to fulfill because of the absence of Mr. Anderson, and they requested that attorney be present. I believe a tentative date has been set for February 22 for this Conference with the Board of Trustees of Hospital Savings.

We felt that the time had come to make a decision. If we could not get cooperation and establish this as we had visualized it, that then probably the proposition should be

considered of establishing our own fully operating insurance company sponsored by the State of North Carolina Medical Society.

That is all I have to report on that.

President Johnson: All right. We have with us some people who are interested in this from the standpoint of the Association which has agreed to participate in it, and we would like to hear from either Dr. Brewer or Dr. Goley about it.

Dr. W. C. Goley: Mr. President, I don't think it is a question of what Dr. Shuford said. I sincerely believe from the bottom of my heart that the best thing for this State Medical Society to do is to control the Blue Shield emblem and do with it what they want to do. If you want to give it to Metropolitan, give it to Metropolitan; if you want to give it to Hospital Savings, give it to them, or Medi-Care; give it to them.

We simply need to control the Blue Shield emblem, and let it go to any company this group, or your successors, you vote to turn it over to. That is the way I have seen it, and I have served with both companies. I like them both. I want us to tell them where they will get in and if they cross us, and cut rates, and do what we don't think is right, then we will give it to Metropolitan and say "You sell this contract for us." We are not putting any money into it. We just guarantee it. If it doesn't pay out, then we will take the loss.

Dr. Brewer: Mr. President, I would just endorse what Dr. Goley had to say. I think he covered it pretty well. I would say that I think this thing has been batted around from time to time, and it is about time we decided what we are going to do with it.

It is time that we utilized every opportunity we have to further all forms of prepayment of medical hospital insurance. It is important that we do that as early as possible.

President Johnson: Now the concept that I have of what we are attempting to do in this state, and what the House of Delegates authorized this Ad Hoc Committee to do, and what the House of Delegates authorized this Executive Council to do, if it saw fit to approve, was that a third corporation be organized to take over, if you choose to

word it that way, to acquire or to hold the Blue Shield emblem, which would enable this corporation, a subsidiary of the Society of the State of North Carolina, to draw up, write, otherwise put together, various types of service policies under the Blue Shield emblem, and then permit any company, whether it be Hospital Saving, Hospital Care, Metropolitan, or whatever, to sell this policy in connection with their Blue Shield policy as a "Fair Trade" policy.

I believe if you will read the minutes of the meeting it will be clearly spelled out—that this corporation was to hold Blue Shield itself, and to formulate its own policies, and to underwrite its own policies, and then make a contract, or permit the other companies to sell it. Does anyone here disagree with that concept or understanding?

Dr. Shuford: It is not as simple to obtain the Blue Shield emblem as it might sound.

We have been promised more or less that if we do organize this third corporation, that National Blue Shield will confer the emblem upon us, approve the corporation that you set up, and you have to abide by their Bylaws and regulations, and everything else.

It has to be a nonprofit institution first, and as I understand it, there is some question as to whether they would approve a so-called nonoperating company, a paper company, with no capital and no reserve. You have to have all your policies, and they have to come up to certain standards, and specifically state the participating agreements and all that. It is quite a long thing that you would have to present to them for approval. And it is no as simple as it might sound to set up a corporation on paper and then try to work it out.

So I think you are going to have to do some more spade work first, and it seemed to me out of fairness to those involved, Hospital Care and Hospital Saving, that we approach them on their own grounds and give them a chance to question us, and for us to question them as to what the intent is, and another thing, too: You cannot grant Blue Shield to a profit corporation. No commercial carrier is entitled to Blue Shield. It must be a nonprofit operating company. That is basic to

their foundation.

Dr. Paschal: I move we accept this as information.

(The motion was seconded by Dr. Garrison.)

President Johnson: Discussion? All in favor say "aye"; opposed "no." It is carried.

Let us move now to Report of the Committee on Relative Value Scale Study, Ad Hoc. Dr. Shuford and Dr. Bugg.

Dr. Shuford: I just want to thank Dr. Bugg for the colossal task that he has completed.

Dr. Bugg: I think that all of you have a copy of the committee report, is that correct? I have nothing to add to this committee report.

Of course, it would be impossible for me to read a committee report that is that thick, and you have it there. The only thing that I can say about this is that it is impossible to draw up a schedule in this much detail without making errors (of understandings) in it. The subcommittees I think were very conscientious in doing their work, and I certainly owe my thanks to them. It will have to be changed and modified. Additional procedures will have to be added to it. Other than that, I have nothing to say, except that I would like to comment on this, if I may.

I notice that this North Carolina Committee on Government Fees for Eye Care has a paragraph that we, as a group, go on record in recommending to the North Carolina State Medical Society that one schedule of fees for all Government agencies be established as soon as possible.

I don't think that that is possible, and this Relative Value Schedule is the sort of thing that would be used in negotiating a schedule.

For instance, you are not going to be able to set up the same fee for a patient under Medi-Care as you would for a patient who is being handled as a semi-indigent patient, or as an indigent patient who is being cared for under Government auspices. And I think that in negotiating these schedules, you would have to have many schedules, and the purpose of this Relative Value Schedule—and I want to point out to you particularly that it is "relative value." It doesn't make

any difference whether you assign \$1 per unit, or whether you assign \$10 per unit. It is supposed to put it in relative value to other procedures.

Now there is another thing in the committee report which you will find of interest, because there was some confusion about it, and that is the part of your report that says that it is recommended that the schedule for medical fees, surgical fees, laboratory fees, and x-rays, be negotiated separately.

Would you like to have me explain a little bit about that?

There has been a little confusion. The difference in the overhead for doing a uranalysis, for instance, in comparison to what the fee charged is, is not the same as the overhead for doing an appendectomy. So if you cut the fee per unit in half for an appendectomy, the surgeon would still have a profit, but the laboratory man doing the uranalysis might lose 25 per cent. By that I mean may actually lose 25 per cent of the fee. I mean he might go on a dollar uranalysis, instead of cut to 50 cents, he might actually lose 25 cents on the procedure, instead of making his profit, because his overhead would be running 75 on a dollar procedure, which nevertheless is bulk income, net income, might be the same, but it might be a much smaller proportion of his gross income than that of a surgeon. The same thing applies to the radiologist, and the same thing applies to the medical fee schedules.

For instance, the orthopedist who treats a fracture case with a relative value of 10 units, his overhead for those ten units, 3 units of it might go for overhead.

The medical man at the same time may be carrying out an immunization procedure, such as for polio, in which his vaccine cost him \$6, including the administration of it, and he would have only a 4-unit basis for his profit, whereas the orthopedist would have a 7-unit basis; and if you cut each one of them exactly the same proportion—otherwise you cut the units down you were talking about to 7 units—why, the medical man's profit would be so low that he wouldn't be able to continue his business, while the orthopedist, while his income might be cut, still would be receiving double his overhead

on it. Have I made that clear to you?

President Johnson: I think so.

Dr. Bugg: We expect to receive—I think if the question comes up in any of your minds—inquiries. If questions come up in any of your areas with any of your physicians, if they will send their suggestions to me, suggestions on the schedule, I will refer them to the proper subcommittee.

Then additions and changes in the schedule will be made on a constant year-by-year basis, if the schedule is adopted.

Now if you ever had to sit down and negotiate a schedule with any type of Government agency, or if you ever even tried to negotiate a schedule under the Doctors Plan, figuring a schedule under the Doctors' Plan, each individual item has to be negotiated.

Under this policy, you would be able to negotiate those four great specialties, divisions I should say, those four separate divisions, just as so many dollars and cents per unit, rather than going through each individual item of hundreds of items.

I cannot go into the schedule—you each have a copy of it—but I will be glad to answer any questions that you have.

President Johnson: Dr. Shuford, what is the procedure from here relative to this?

Dr. Shuford: Again I want to compliment Dr. Bugg and his committee for his tremendous job that they have done. I know that this has been a terrible thing to do.

I think that this is an excellent idea. I think it provides us with something that most any segment of our profession might use at some time or another.

I would suggest that this report be accepted, if someone would make such a motion to accept this report, and approve the Relative Value Fee Schedule as it now stands, with the provision that—and this is another suggestion—this Relative Value Fee Schedule Committee be made a permanent committee of the State Medical Society, as long as the Relative Value is of any use to us; and that the Relative Value Fee Committee be authorized to make changes as suggested by the various specialty groups at their own discretion, without having to be approved by this body or the House of Delegates.

President Johnson: May I ask one other

question of both you and Dr. Bugg?

This is a most important piece of work for everybody in the Medical Society. Would it not be better that we have a motion here that we approve it in principle, and recommend to the House of Delegates that they approve this, under the circumstances that you have outlined, in Asheville, not in the Called Meeting?

Dr. Shuford: I think this is important enough, and probably will be important enough in the future, that you are going to have to have a committee who knows what this is about, and I believe it should be permanent in the sense as long as we have use for a Relative Value Schedule, that it exists for that length of time, and Dr. Bugg and Dr. Roberts and Dr. Hamilton be authorized to make changes as they negotiate with the various sections of our State Medical Society.

Mr. Barnes: As a permanent committee of the Society.

Dr. Shuford: As long as it is of value to the Society.

President Johnson: Does anyone wish to implement his suggestion into a motion?

Dr. Wilkinson: I will move that we implement his suggestion as he so stated it.

President Johnson: Is there a second to this?

(The motion was seconded by Dr. Garrison.)

President Johnson: What you are voting on now is two things; one, that we in principle accept this Relative Value Schedule as submitted here today, and recommend to the House of Delegates that they evaluate it, and approve it as a Relative Value Schedule, under which the Medical Society of the State of North Carolina shall operate.

Second, that this committee be made from Ad Hoc into a permanent committee, and given the authority to change and alter the Relative Value Schedule as approved by the House of Delegates after negotiating with any group involved in the change, any group of speciality involved in the change. Is that correct?

All in favor say "aye"; all opposed? Carried.

Dr. Bugg: I would like to say one thing,

if I may. Before this is published or sent out for general use, it would have to have forewards and explanations written, and is this committee empowered to do that?

President Johnson: Yes.

Dr. Bugg: And there is one other thing I would like to say. The basic work and the amount of money that has been spent on this Relative Value Schedule by the California Medical Society certainly deserves the thanks of everyone for the amount of money and work that they put into this.

President Johnson: Does anyone object to Jim Barnes writing for me a note to the Relative Value—

Mr. Barnes: We are making a note of it.

President Johnson: Then that will be done.

On the front, consider the financial progress of this Society.

Dr. Benton: I am going to ask a question first. Every September your Finance Committee meets and draws up a budget, and allocates the money to the various and sundry committees, and then before the year is over, Council meet, and they will give away \$900, and there is no way in the world that the budget can get the thing out of there, except the Contingency Fund, and there is usually not that much play in it.

President Johnson: Will somebody make a motion that it be reflected in next year's budget?

Dr. Paschal: So moved.

Dr. Benton: You all intended, I hope, for us to put it in next year's budget.

Financially, we are well off. There are only three committees that have spent more than their allocated money, and our income has been phenomenally close to what we anticipated. I don't know how Jim figured it out that close.

For the twelve months ending December 31, 1960, we had a profit of *\$25,246.96—that's from this year's operating fund less capital purchase equipment.

Our investments are going good. We have invested in money a total of \$99,181.28 in mutual funds, you know, and as of January 23rd, we have made a profit out of that of \$4,549.89. In other words, it is now worth

*See audit report A. T. Allen & Co.

\$103,731, which gives us a little over 3 per cent interest, but it does not reflect the appreciation of the bonds during the year. All the mutual funds have done better than the stock market as a whole, but I would not anticipate much appreciation this year, maybe some. It is half in bonds, and half in stocks, you remember. So that does well.

Our land has increased a thousand per cent since we bought it. That is judging from the tax appraisors. I still want to hold onto that as long as we can.

In talking of land, the Committee for the Headquarters building—the last time we met, we decided that we were going to ask the two member Raleigh Consultants to keep their eyes open, and if any bargains came up in land around close to the capitol, to get a price (holding option) on it, and we might be interested in buying some of that, not necessarily to sell what we have got, but buy it from accumulated funds we have or some other way.

Dr. Benton: That completes my report.

President Johnson: Any question about Dr. Benton's report? Anyone wish to ask him any questions at all?

Dr. Paschal: Mr. President, if I may, I would like to speak very briefly about some of the work of the committee of the two men in Raleigh, Dr. Alex Webb and Dr. Hewitt Rose.

Just yesterday, one of these members gave me some drawings of property that was available within the vicinity of the new State House, and he has quotations there on the valuation of this property, at least what Henry Fawcett thinks it might be worth at the present time.

He has listed here four different properties, all within the vicinity of the new State House, some of them in very close proximity; others a little bit further removed.

The one in which he is primarily interested, and which they think is possibly the best piece of property, is one which is now on Salisbury Street, west of the new State facility, but right across the street from it—it's the third lot south of Lane (near Walton's) Street, if you are familiar with that property. It is between Jones and Lane Streets, West side of Salisbury. This prop-

erty is 55½ feet in width and 210 feet in depth. It runs, I believe, through that entire block. It is estimated that this property can be had for \$33,500.

All of these properties in that vicinity, I am told, are going to be secured either by speculators, or for people who want to put things there, and it is questionable in Mr. Fawcett's mind whether these will long be available to us if we are interested in buying.

His second choice is one which is on Jones Street, about one property removed from the Elks' Club, if you are familiar with the location of the Elks' Club. That property is 60 feet, has a frontage of 60 feet, and a depth of 130 feet, and they estimate the cost of that as being \$32,000.

There is a third property, which is on East Jones Street and North Person Street, which is diagonally across from the Governor's Mansion. That has a 50-foot frontage on Person Street and 105 on East Jones Street, and we are told that that can be had for \$17,500.

The fourth piece of property which is on West Jones Street, close to Harrington, somewhat further removed from the facility, the new State facility, is 52½ feet on the street frontage, and 210 feet in depth, and that property is estimated to cost \$25,000.

These are things that are available to us now, if we are interested in them. It is further suggested by Dr. Rose and Dr. Webb that we have a consultation with somebody that is completely competent to evaluate this property, before we make any further steps. But if we are going to do anything about it, they think that something ought to be done relatively soon.

President Johnson: What would you recommend that we do?

Dr. Paschal: In any event, I make a motion that it be referred to the committee with authority to act on the things that I have suggested, and that if we do have a Called Meeting, that they bring it to us at that time.

(The motion was seconded by Dr. Beddingfield.)

President Johnson: Is there discussion of that motion? All in favor say "aye"; op-

posed "no."

Dr. Ivan Proctor has a building on Hillsboro St. in Raleigh, which is being vacated, and he has written and talked to several of us about the proposition of moving our State Offices from their present location out to his building.

Mr. Barnes, could you talk briefly to that?

Mr. Barnes: He took me around the other afternoon to see it. He has about 2,000 feet of space on the first floor of this building located in the second block west of the capitol on Hillsboro Street.

It has 13 rooms, some storage space, the number of rooms would be about equivalent to what we have got where we are. He is renting it to the present company for \$350 a month, whereas we are paying about \$600 a month for roughly 32 or 33 hundred square feet of space.

Now we would have to telescope somewhat, and it would cost you something to move, and if you moved somewhere else, we would have another move.

President Johnson: Dr. Rhodes, what would you think about it?

Dr. Rhodes: Dr. Proctor came and talked to me about it, and he is concerned. I gather that the rental on the property is reasonable, but once you have expanded from 2,000 square feet into 3,200, I think we would find that our offices would be a little bit cramped if we tried to get them into this reduced space.

Dr. Reece: I make a motion that this same committee in Raleigh that is investigating the other properties for purchase be requested to act as a committee for this Executive Council to investigate and report to us at the next meeting of this Council.

(The motion was seconded by Dr. Wilkinson.)

President Johnson: Discussion? All in favor say "aye"; opposed? Carried.

Dr. Benton: I have one more thing. In January, Amos Johnson and Jim Barnes in Greensboro went with me with some other fellows and looked over the auditorium in Greensboro, and Jim tells me that the price is right, and by 1963, Greensboro will have adequate hotel facilities for us and would like to invite the Medical Society to come to

Greensboro, if we cannot come down here in 1963.

President Johnson: Would it be a mistake to ask for us to pass a resolution requesting the Nominating Committee, both this year and next year—let it be an overhang request for the next Nominating Committee to investigate, look into and consider Greensboro for a site for one of our upcoming meetings?

(Such a motion was made and seconded by Drs. Raiford and Bridger respectively.)

President Johnson: All in favor say "aye"; opposed "no." Carried.

Dr. Caldwell was going to be here and give us a report on some work that he has done on the Ad Hoc Trust Study Committee.

Mr. Barnes: Report of the Ad Hoc Trust Study Committee:

The Trust Study Committee was appointed two years ago ad hoc to the Finance Committee. Its function is to keep abreast of legislation known as "The Self-Employed Individuals Retirement Act," H. R. 10, or the Keogh Bill, and to advise on the feasibility of the Society sponsoring a retirement plan under this legislation for benefit of the members.

The committee in 1960 presented a preliminary draft of a proposed North Carolina Medical Retirement Savings Plan which would comply with the proposed legislation at that time.

This plan, along with the committee's recommendation, was presented to the House of Delegates last May in Raleigh. A resolution was adopted by the House of Delegates which would allow this committee to negotiate with banking and insurance institutions to implement the provisions of any retirement benefit legislation on behalf of the members of this Society.

The "Self-Employed Individuals Retirement Act" was not passed by Congress in 1960. The bill never came out of the Senate Finance Committee. There were some objections to the bill as it was written and some alterations were suggested.

On the first day of Congress this year Representative Keogh of New York introduced his new bill and it was referred to

the House Committee on Ways and Means. This bill incorporates some of the provisions of the previous bill and alters and adds a number of other provisions which substantially changes the bill. We are advised that a statewide plan would be permitted under the present provisions of H. R. 10.

The committee is in a position now to select the banking and insurance institutions to participate in the plan. The proposed legislation calls for an effective date after December 3, 1961. However, there is need now for the plan to be organized and to be ready. Also, the members of the Society should be informed about the plan as early as possible. It is anticipated that many banks and insurance companies will participate in this program on their own in some way, and as soon as the legislation is passed they will be after their customers to enter their particular plan.

There will be a meeting of the Trust Study Committee on Sunday, February 26, 1961, at which time it is anticipated that a bank and insurance company will be selected.

As soon as a bank and insurance company are selected, plans will be made to organize and promote the program. The committee will present the plans to the Executive Council and to the House of Delegates at the annual meeting in May and ask for ratification at that time.

President Johnson: Would anybody move this be received as information?

(Such motion was made by Dr. Garrison and seconded by Dr. Raiford.)

President Johnson: All those in favor say "aye"; opposed "no."

Election of the 4th AMA delegate and alternate to serve through December 31, 1961. Jim, will you explain the maneuver of December 31, 1961?

Mr. Barnes: Well, as I understand, we are faced here with the problem of electing a delegate who will serve in any meeting of the AMA House of Delegates through December 31st, and then Dr. Shuford's committee will make a nomination which will come in at the annual meeting for adoption for four new delegates whose terms of office will begin on and after December 31, 1961.

So your problem is electing a tentative

delegate for the fourth position which the AMA has allowed. Is that your understanding?

Dr. Rhodes: Yes.

President Johnson: Do I hear nominations?

Dr. Wilkinson: Mr. President, I move that our present President of the State Medical Society be elected as a fourth delegate to the AMA.

Dr. Raiford: I will second that nomination.

(Dr. Raiford assumed the Chair.)

Chairman Raiford: It has been moved and seconded that Dr. Amos Johnson, present President incumbent, be appointed as the fourth AMA delegate to serve until December 31, 1961. Any discussion?

Dr. Paschal: I move nominations be closed.

(The motion was seconded by Dr. H. L. Johnson.)

Chairman Raiford: We will authorize a unanimous ballot be cast by the Secretary electing Dr. Johnson.

Dr. Rhodes: It is my pleasure to cast a unanimous vote for Dr. Amos Johnson to serve as a delegate to the AMA—to serve as a member of the House of Delegates of the AMA from the State Medical Society of the State of North Carolina to a term ending December 31, 1961.

(President Johnson resumed the Chair.)

President Johnson: Is there any other item to which we should give priority?

I am overwhelmed. I thank you all.

Mr. Barnes: An alternate delegate?

President Johnson: The floor is open for the election of an alternate.

Dr. Wilkinson: Mr. President, I will speak again. I would like to nominate Dr. George Paschal as an alternate.

(The motion was seconded by Dr. Garrison.)

President Johnson: It has been nominated and seconded that Dr. George Paschal be named.

(A motion to close nominations was made by Dr. H. L. Johnson and seconded by Dr. Raiford.)

Dr. Rhodes: It is my pleasure to cast a unanimous ballot of the Council for Dr. George Paschal as alternate delegate to the

House of Delegates of the AMA for Dr. Amos Johnson.

President Johnson: we will go to Item 15, just below that on the same page, Consider proposition of the American Society of Professional Biologists in relation to offer of direct laboratory services to North Carolina physicians in the case of patients. Should the Society establish a policy attitude toward such operations and probable legislative proposals which may emanate to effect authority for such a system.

Dr. Reece: Mr. President, that will take about two minutes for this thing. First, this letter comes from the American Society of Professional Biologists. It is directed to the State Medical Societies, heads of State Health Departments, and Directors of State Laboratories.

This is the same old problem of individuals on professorial position, many of them, qualified but seeking recognition as a Director of both clinical laboratories, or other phases of medicine, psychologists, and psychiatrists working together.

This deals specifically with individuals who would run laboratories. They are attempting to have recognition of their group through licensing, the states and other organizations, in some certification. The AMA has a committee that worked with this group, a committee to study the relationship of medicine with allied health professional services. The American College of Pathologists, the American Society of Clinical Pathologists, has supplied me with quite a bit of information from their side.

May I summarize briefly their recommendations, which just restate the position that the AMA took both in 1948 and again in 1951.

Their position at this time: That we do not believe that it is either advisable or desirable to attempt to control or guide the educational training and recognition of these specific groups. They are specifically set up and controlled under medical schools and institutions of that type to perform their function locally, for the training of doctors is to practice medicine.

I think we should work with them locally, but we have always had trouble when we

try to deal with them on their nationwide organizations, and they eventually led to chiropodists, chiropractors, and everything else. I think that it be our sense to deal with Biologists only locally in contradistinction to nationally and that it is advisable that we take no action toward a cooperative effort, but merely move that the AMA maintain their same position.

(The motion was seconded by Dr. Paschal.)

President Johnson: Discussion? All in favor say "aye"; opposed "no." Carried.

While you are about it, Dr. Reece, will you talk to consideration of AMA Research Subcommittee Report on Blood Dyscrasias associated with drug-chemical therapy?

Dr. Reece: This is a vast amount of material dealing with blood dyscrasias as they may relate and the etiological factor of producing blood dyscrasias from various drugs that are given.

This report that I received some time ago, and also Jim, I was in Chicago three weeks ago when this same Council was meeting at the time, and Dr. Ahl was talking.

As you know, I believe in the State of California right now, approximately 20 cases are related to chloromycetin in blood dyscrasias.

The problem is that this committee is attempting to get all blood dyscrasias reported. They even have accumulated 75 cases of aspirin producing various types of blood dyscrasias in the year and a half that they have been functioning. They are merely asking the profession to disseminate this information, that any blood dyscrasias should at least be reported to them, and the drugs that they have received.

I move that the matter be received as information, and encourage professional men to carry out the obligations and report unusual findings.

President Johnson: Is there a second?

(Dr. Johnson seconded the motion.)

President Johnson: All those in favor say "aye"; opposed "no." Carried.

Go back to Page 2, Item 11, Consider State Board of Health concern in regard to current incidence of syphilis and the part

practicing physicians may play in control program.

Dr. Norton: I don't know how this originated, but we did prepare a report, and it is largely for information of the group, indicating that the morbidity reports for North Carolina indicate that gonorrhea is the leading communicable disease reported in '59, 10,816 cases, syphilis, 4,273, followed by measles, 3,391, tuberculosis, 1,446, and scarlet fever, and so forth on down; and indicating also that a relatively small number are being reported as either primary or secondary; and also there are further breakdowns in this, and it is just passed along as information which might be of interest.

May I, while I am still on my feet, also report that Dr. Sam Ravenel's request for his committee representing the Medical Society for a continuation of the support for the state paying for polio vaccine be continued during the next biennium was not approved by the Advisory Budget Commission, and that is just for information, because you probably will appeal that, and probably won't have any trouble getting it.

I would like to express appreciation to the State Board of Health for the State Medical Society in relation to our budget. The Advisory Budget Commission this time did recognize our need for the first time in several years, and they did give us relatively a good increase compared with other years, and we thank you.

President Johnson: There was a report out by Dr. Reeves, as Chairman of Radiation Control committee, just this past week. Would you care to talk to that just a minute?

Dr. Norton: Yes, I will be glad to. That is moving along. Dr. Reeves is working on that, and also you will be sorry, I am sure, all of us are, that Billie Carmichael, Chairman of the Atomic Energy Committee, has passed away, and there will have to be a new chairman.

Dr. Reeves is on the committee with regard to the mediation registration, and there is a recommendation for moving along with that that will come before the State Board of Health at its meeting on Tuesday.

Dr. Williams: I would like to move, that

this body recommend to our President that he call a Special Called Meeting of the House of Delegates of the Medical Society of North Carolina to consider further the Kerr-Mills Act, and Blue Shield — could you include that? When you call a Called Meeting, you are only empowered to discuss those things that were specifically set out at the Called Meeting. Is that correct?

Dr. Koonce: That is not in our Constitution, but it is according to Robert's Rules of Order.

Mr. Barnes: Which govern us.

Dr. Williams: Would it be good to state, and that the state office ask each county society to meet and thoroughly instruct their delegates.

Dr. Paschal: I second the motion.

President Johnson: Discussion? All in favor say "aye"; opposed "no." Carried.

Since there won't be any rooms involved, and people not staying, perhaps Durham would be a little more centrally located.

Now we will come back to presentation of the minutes of the Executive Council, October 2, 1960. That was approved November 28, 1960. The only thing of pertinence there is the November 28, 1960 entry - refer to summary letter addressed to Dr. Ellen Winston, dated December 7, 1960.

Mr. Barnes: That letter, which you all have had, and which constituted a part of your editorial in the Journal, is in substance the action of the Executive Council on the 28th day of November, and I wanted you to know that you had that summary of the minutes.

Of course, the regular minutes will be in the transactions. They will appear in the transactions.

President Johnson: Does anyone move that they be accepted?

(Such motion was made by Dr. Reece, and seconded by Dr. Williams.)

President Johnson: All in favor say "aye"; opposed "no." Carried.

Consider the North Carolina Prison System request of the Medical Society for expression on public policy related to use of prison inmates in voluntary medical research programs.

Dr. Rhodes: Some months ago, I was re-

quested to attend a conference by George W. Randall, Director of Prisons. At that conference, there were present two members of the Prison Commission, a representative from the Board of Health, Dr. Jacob Koomen, and a representative from the Attorney General's office, Mr. Churchill.

This meeting was precipitated by request from Dr. Randolph, City Hospital, Winston-Salem, requesting permission to use prisoners in a research project. At that meeting, it was stated by Mr. Randall that in addition to making some decision about that particular request, he would like to have that group recommend a policy, a public policy, to the Prison Commission concerning the use of prisoners in research projects.

It was determined very briefly that under such conditions, that if a research project, a request was made from the Prison Commission, it would be referred to at least two of the medical schools, representatives of at least two medical schools, to clear the project, as well as to the Board of Health for clearance, and then on a voluntary basis, prisoners could be used in such experiments.

Now I bring this to you because this group requested that we get a reaction of the Council of the Medical Society on this policy of the use of prisoners on a voluntary basis in experimental work properly cleared under these conditions.

And so I recommend, Mr. President, that we endorse this policy for the benefit of the Prison Commission.

President Johnson: You make that in the form of a motion?

Dr. Rhodes: Yes.

(The motion was seconded by Dr. Reece.)

President Johnson: Further discussion? All in favor say "aye"; opposed "no." Carried.

Consider the newly organized National Council on Aging and whether there should be authorized monitor participation for the Medical Society of the State of North Carolina.

Mr. Barnes: I have a memorandum here. I expected Dr. Kernodle to be here to discuss this, and to effectuate it. I had made this memorandum for myself:

We should like to note that through the

leadership of Mr. G. Warfield Hobbs, formerly a New York banker and now chairman of the Board of Olympia, Inc., and who has for several years served on the National Social Welfare Assembly National Committee on the Aging has organized the National Council on the Aging which is to be a non-profit national organization to serve the needs of older persons. It is to be noted that the expanded program envisioned in this Council organization will be discussed, at the annual meeting of the National Welfare Assembly as will such changes in organizational form the National Council on Aging may assume. The Council's aim as expressed by Mr. Hobbs include the stimulation of constructive action for meeting the needs of older persons and providing opportunities for their continued independence and constructive participation in the life of the community. Encouragement and assistance will be given to industry, labor, welfare groups, government agencies, homes for the aged, colleges, hospitals, religious groups, and others interested in older people to expand their efforts in the field. I note that this enumeration does not include the field of professional medical practice which may have some significance.

This leads me to suggest that the leadership of the Medical Society of North Carolina ought to consider some sort of designation of affiliation and participation in the National Council on the Aging to the end that we may be kept abreast of this developing affluence and the prospects that it can be guided along sound channels related to the interest and concern of medicine in the subject of the aged.

President Johnson: This fellow Hobbs was very present around the White House Conference. I do think that at least for the first year we ought to send our top man on aging there, and just let him sit in. I don't think we ought to join or take any specific action until we get a report from him and see what the atmosphere is there.

(A motion that the Society have representation was made and seconded by Dr. Garrison.)

President Johnson: It has been moved that we send a monitor participant.

All in favor say "aye"; opposed "no." Carried.

That brings us to Consider North Carolina-South Carolina Conference related to Medical Education as reported to Council members through mimeograph distribution October, 1960. What future steps should the Society encompass in its activities?

Would you talk to that, Annette, please?

Mrs. Annette S. Boutwell: On the report that you received in October, it pertained to a joint meeting of medical leaders and deans of medical schools, and representatives of the Duke Endowment Corporation in Charlotte.

The major discussion was given to how can we promote the increase in the number of physicians being trained in the field of general practice? How can we encourage these physicians to stay in the field of general practice? And what are our medical schools doing now in terms of training, in terms of internships, and in residency training, that is altering or hindering the expansion of the number of general practitioners?

I think that it would be a wonderful thing for organized medicine if something like this could happen in this state, and I would suggest that somebody make a recommendation or make a resolution that this be approved and encouraged.

Dr. Reece: I make the motion that it be approved and encouraged.

(The motion was seconded by Dr. Koonce.)

President Johnson: That will happen as soon as the dean gets back, and not before. But the Duke Foundation is going along with will supply the money.

Discussion? All in favor say "aye"; opposed "no."

We are to consider request of Mr. C. Joseph Stetler, Director, AMA Legal Division, as to activity in North Carolina regarding the enactment of a statute permitting medical or professional corporations.

Mr. Barnes: Mr. Anderson, you have that correspondence.

Mr. Anderson: The Kintner decision, which held that an association of physicians met the requirements of the U. S. Internal Revenue Act, has now been made almost impossible to meet by the regulations which

were issued by the Federal Internal Revenue Agency. Those regulations, in my opinion, and in the opinion of these other lawyers who studied it more than I, do not permit you to organize in any association form and get the tax advantages.

Now a corporation can have a pension plan. You remember that Dr. Kintner and his associates organized what they called a clinic, a partnership, in effect, but it had a lot of the aspects of a corporation, and the Treasury Department recognized that as a corporation, so that the part that Dr. Kintner paid each year toward the pension plan, which in this case was \$500 on his part, was held to be a proper deduction for tax purposes.

Since the Keogh Bill has not been passed, and it is very doubtful that it will be passed this year, the question has arisen in Indiana, and in Connecticut, and in Mr. Stetler's mind, that this subject would be of interest all over the country, so he sent to all of us this material, and a suggested draft of a law which would accomplish that purpose in North Carolina, if you want to approve it.

He also sent a letter saying that the AMA has no policy which would conflict with the organizational practice in such a corporation, and they sent a copy of the resolution, which I won't read now.

Dr. Wilkinson: I move that this be referred to the Ad Hoc Committee under Dr. Jesse Caldwell for consideration.

(The motion was seconded by Dr. Reece.)

President Johnson: All in favor of this say "aye"; opposed "no." (The motion carried.)

Consider the authorization for updating the resolution of 1959 expressing opposition to the Social Security mechanism for financing medical care; update a resolution to counteract the resolution that came out of the White House Conference.

Dr. Reece: I move that it be done.

(The motion was seconded by Dr. Raiford.)

President Johnson: All in favor of the motion say "aye"; opposed "no." Carried.

Mr. Barnes: Mr. President, I have here a certificate from the United States Treasury Department, Award presented to the North

Carolina Medical Journal in appreciation of the patriotic service to the national in the United States Savings Bond Program, Awarded January 3, 1961. Signed by Robert B. Anderson, Secretary of the Treasury, and W. H. Andrews, Jr., Chairman.

Dr. Beddingfield: I move it be received as information.

(The motion was seconded by Dr. Raiford.)

President Johnson: All in favor say "aye"; opposed "no." Carried.

Dr. Beddingfield: Dr. Morris left this with me. He had to leave. This has to do with the fact that the Governor has recently established a North Carolina Highway Safety Council, which is a group of industrialists, and business leaders, and monied people over the state, who are seriously concerned about the problem of traffic deaths and highway safety, and they wanted to form an organization outside of the Department of Motor Vehicles to try and have an intensive campaign of education, study, research, on the problem of highway deaths.

And in line with that, Dr. Morris has submitted the following resolution: The Medical Society of the State of North Carolina, recognizing the gravity of the terrible slaughter on the highways of North Carolina, and the entire nation, offers its wholehearted cooperation to the Governor's Highway Safety Council recently announced. The automobile today is a third greatest killer in our country, second only to heart disease and cancer. The age group from 16 to 25, the automobile ranks number one as the major cause of death. It is a well-known fact that the careless driver, the drinking driver, the speeding driver, and possibly the sick driver, are at the top of the list as the major causes of the killing of more than 1200 North Carolina citizens annually, and injuries sustained by more than 20,000 more, many of which are permanent and crippling.

In addition, many millions of dollars are lost in North Carolina because of property damage, medical and hospital care, time and wages lost, and increasingly higher liability insurance premiums. This tragic toll has been steadily mounting during a half century, which has seen a dramatic and drastic

reduction in deaths from other diseases. The Medical Society recognizes that much evidence exists to indicate that careless and reckless driving may be a disease. The emotional stability, lack of normal response, and existing physical disabilities known or unknown are well within the province of the practice of medicine today. Such hidden conditions as defective eyesight, diabetes, heart conditions, high blood pressure, epilepsy, and other medical conditions, may be playing a major part in some automobile accidents.

Here the medical profession can make a major contribution by calling the patient's attention to the hazards associated with his driving a car on the crowded streets and highways of today. Especially dangerous is a driver who may be taking a tranquilizer, sedative, or other medication which makes him unfit to drive.

The Medical Society of the State of North Carolina feels that through its members and several committees it can offer to the people of North Carolina a public service in preventive medicine with its help, along with other agencies of the state directed toward correction of the causative factors which are continually existing and gradually increasing the horrible accident toll from the automobile.

The American Medical Association for a number of years has had a committee which has made a careful study of this problem and continues to do so; considering all factors, it was recommended that all new drivers and accident prone individuals, those with repeated minor offenses, be required to show that they have taken a state-approved course in driver training. Such a course would be financed by charging the student a fee sufficient to underwrite the cost.

This program, along with others, would require legislation, but driving a car today is no longer a right; it is a privilege. The public is accustomed to paying for privileges, and the individual wishing to learn to operate a vehicle could reasonably be expected to pay for that privilege.

The doctors of North Carolina who, for years, have had to see and treat the bloody, torn and broken bodies brought to the emer-

gency rooms, listen to the cries of the families and friends left behind, know too well the tragedy, sorrow and grief which accompany the crash of automobiles. The fact that we have on our North Carolina highways today 190,000 assigned risk insurance cases means that the driver who has had no respect for the law, or the law enforcement officer, or the men, women and children in the oncoming car, must be taken off the road.

The medical profession of North Carolina wants to make its contribution to reversing highway death and injury tolls in our state, and stands ready to cooperate to the fullest extent with the North Carolina Highway Safety Council.

Now that is the text of his message, and he asks that this Council adopt and endorse this, and that a copy of it be sent to Wallace Hyde, Ph.D., 102 Sir Walter Hotel, Coordinator of the Highway Safety Council of North Carolina.

Dr. Beddingfield: I read that.

I will make a motion that we endorse this in principle, and that it be returned to him for final drafting before it is sent to the Highway Safety Council; that the final draft be acceptable to our Public Relations Committee?

(The motion was seconded by Dr. Paschal.)

(The question being put carried.)

President Johnson: Is there a motion that we establish a three-man ad hoc committee to work with this?

(Dr. H. Johnson so moved, duly seconded by Dr. Paschal.)

President Johnson: Any discussion? All in favor say "aye"; opposed "no."

Item (d) is Health Officer, Halifax County.

Mr. Barnes: I believe I can take care of this by reading a letter that I wrote before I left Raleigh to Dr. Young in response to a letter that he had written us reporting that the Sealtest people of Wilson, North Carolina, had introduced, with Department of Agriculture endorsement, a product known as Sealtest 900 Calorie Diet Skim Milk, and he was inferring that maybe all the health officers in North Carolina had

gotten a communication from this Sealtest outfit.

(A letter was read.)

It seems to me that maybe we can use the device of Dr. Charles Styron, who has fitted in on nutrition problems, and get at some beginning recommendation on this thing.

President Johnson: Is Dr. Styron our only member on The N. C. Council on Nutrition?

Mr. Barnes: Yes, and he is the only individual to whom any nutritional problem has been referred in the last four or five years.

Dr. Norton: I don't know how to react to it. The Agriculture Department has the authority. I do think it would be a good idea to request Charlie Styron to look into it, and to see what he has to suggest.

Dr. Wilkinson: I make a motion that Mr. Barnes contact Dr. Styron and ask him to investigate this, and report it to us at our next meeting; and also that Mr. Barnes look into it to see if there be any committee of the American Medical Association.

(Such motion was seconded by Dr. Beddingfield.)

President Johnson: All in favor say "aye"; opposed "no." Carried.

Discuss prospects of a mutual problem related to licensure of lying-in facilities and approval for Blue Cross.

Mr. Barnes: This represents a communication by telephone from Mr. William Henderson of the North Carolina Medical Care Commission.

As I understand it, the North Carolina Hospital Association has been the intermediary between insurance companies and doctors' offices which have some lying-in facilities, but are not general hospitals, and not subject to licensure under the Hospital Licensure Statutes of North Carolina.

Now NCHA wants to give that up and they are going to give it up. They already passed a resolution of their Board, and I think it is in the offing now, and they are recommending that the North Carolina Medical Care Commission by amended statute assume that responsibility, and the problem is that therein are certain standards set up which have the effect of requiring an average of two patients per day, lying-in, in order to

qualify as any sort of a facility, and many of these places operated by physicians may not have a patient but once a week overnight, and they contemplate there are going to be some kicks from physicians that have these places, and they wanted you to be aware of the standards that prevail and which now have the force of law, as I understand it, by action of the Medical Care Commission.

Dr. Koonce: I move it be received as information.

(The motion was seconded by Dr. Raiford.)

President Johnson: All in favor say "aye"; opposed "no." Carried.

President Johnson: Consider guest executive for orientation period, space and desk accommodations.

That is a matter pertinent to the general practitioners in the state, the Academy of General Practice. As of January 1st of this year, they employed an Executive Secretary for our Academy of General Practice and the Academy of General Practice has expressed a desire to have him for a short period of time have orientation, to hang around our state offices and come up with some information that would get him a little oriented.

President Johnson: Mr. Barnes, will you talk to it? What is your feeling?

Mr. Barnes: My feeling is we should certainly cooperate with the Academy in helping this young man to get oriented, and we certainly would find nothing objectionable to finding a place in which he could have a desk to return to, and maybe undertake his correspondence in one thing and another.

And if the Academy wanted to maybe join in the use of some of our facilities, if it didn't interfere with our program, we might find some basis for doing that.

I wouldn't think it would be a permanent

thing. If you did, you would establish a precedent, so every specialty group might ultimately come into us and request the same situation. That is something you all have to consider.

President Johnson: Does someone want to make a motion that this be done on an indoctrination and temporary basis?

Dr. Reece: I make the motion he be a welcomed guest for indoctrination on a temporary basis.

(The motion was seconded by Dr. Williams.)

President Johnson: Any discussion? All in favor say "aye"; opposed "no." Carried.

Possible depture in clinics for procedures.

Mr. Barnes: We understand tha the Crippled Children's Department perhaps received some funds or resources, and they are proposing a pilot run of some clinics for the detection and diagnosis of children affected by seizures. And on that basis, it was suggested to us that maybe this Council wanted to know about it, and Dr. Norton would give us a clarifying statement on it, so that if anything came up in the state, that we would have an explanation of it at least.

Dr. Norton: Mr. President, we have some funds that are avilable, so that we can have a pilot project to include along with the other crippled children's work.

And this matter will be discussed Tuesday at the State Board of Health meeting, and it was just mentioned as information.

Any suggestions anyone might have—

President Johnson: Does anyone care to say anything to this? We accept his as information.

Do I hear a motion that we adjourn?

(Such motion was made, seconded, put to a vote and carried; whereupon the meeting adjourned at five-thirty o'clock.)

MEETINGS OF THE HOUSE OF DELEGATES

SUNDAY AFTERNOON SESSION

(First)

May 7, 1961

The Opening Meeting of the House of Delegates of the One Hundred Seventh Annual Session of the Medical Society of the State of North Carolina held in the City Auditorium, Assembly Hall, Asheville, North Carolina, convened at 2:25 p.m., Dr. Amos N. Johnson, President of the Society, called the meeting to order.

PRESIDENT JOHNSON: The House of Delegates of the 107th Annual Session of the Medical Society of the State of North Carolina will now be in order.

The invocation will be given this afternoon by Rabbi Sidney E. Unger of Temple Betha-ha Tephila of Asheville. Rabbi Unger! (Rabbi Unger rendered the invocation.)

DR. JOHNSON: It is my pleasure now to present to you our Speaker, Dr. Donald B. Koonce!

[Dr. Koonce assumed the Chair as Speaker of the House.]

SPEAKER KOONCE: The first thing we would like to do is to ask Dr. Tilghman Herring to give a report of the Committee on Credentials.

DR. T. TILGHMAN HERRING: We have 107 delegates.

SECRETARY RHODES: Mr. Speaker, I [announce] declare that there is a quorum present.

SPEAKER KOONCE: And so be it.

I couldn't start this meeting off without again recognizing my predecessor, Dr. Westbrook Murphy. I would like for him to stand and take a bow. [Applause] It always makes me feel a little bit better to know he is there.

I would also like to recognize the Vice Speaker, Dr. Edward W. Schoenheit, which I have neglected to do in the past. [Applause]

Now, gentlemen, we have a lot of business to attend to. As you can see by your schedule, this is the First Meeting of the House of Delegates at this Convention. We

will not adjourn tonight; but will recess until tomorrow morning. Tomorrow will be a continuation of this meeting, and then we will have the final meeting on Tuesday.

As I say, we have an enormous amount of business to attend to, and I hope we can do it with expedition and I hope that the discussion will be open and will be free, but that it will be limited and pertinent to the question only, and I hope you will forgive me if I call you down if you do get far afield.

The other thing I would like to stress is please, when you rise to the question, to have a discussion, go to one of these two microphones which are both live, and state your name, where you are from, and in what capacity you speak, as a delegate, President of a County Society, or what.

The next thing in order is to announce a committee for the President's two messages. Dr. Emery Kraycirik, Dr. Wayne Benton, Dr. Vernon Jeter, on the President's messages, with Dr. Wayne Benton as Chairman.

Now the Committee on Resolution: As you know, resolutions presented to this House today and tomorrow will be acted on, will be taken up by your Committee on Resolutions, represented with a recommendation on Tuesday, and action taken on those on Tuesday.

On the Committee on Resolutions, Dr. John Rhodes is Chairman, Dr. Oscar Goodwin, and Dr. Frank Jones.

As to Parliamentarian, I would like to ask Dr. John Reece if he would serve in that capacity.

Without any further ado we will have the message of our President, Dr. Amos Johnson.

PRESIDENT AMOS N. JOHNSON: First things come first, and it is with a considerable feeling of sorrow, and a feeling of great loss that I announce to you that yesterday evening, one of our Past Presidents, one of our beloved Past Presidents, Dr. Joseph A. Elliott, Sr., of Charlotte, died. His funeral will take place in Charlotte tomorrow

afternoon. Your President and your Executive Director—sent a message to the family which reads as follows:

It is with a deep sense of grief that the Medical Society of the State of North Carolina and its members learn of the passing of the illustrious Joseph A. Elliott, Sr., former president and long time leader of affluence in the affairs of the Society. It is the wish of the officers of the Society that you may find solace in the distinction with which he carried on to do good for his Society and served humankind in a long and useful practice of medicine. Memories will linger long of his beneficent friendships in and out of the professional walks of his life and for those merits we thank the Providence which gave of this good man for his time. This is signed by Amos Johnson, President, and James T. Barnes, Executive Director.

As I stand now before you to give you this accounting of my tenure of stewardship for your Society, I would like to state to you, as a House of Delegates, that I am grateful to you, or to your counterpart, which in Raleigh last year elected me President of your Society.

As I think I said last year, in the words of one of our great Presidents of this Society, Dr. Paul McCain, to be selected and elected as leader, as President of your Medical Society by you, as Doctors, who know me best, is one of the greatest honors that can come to a member of this Society, and I am grateful for it. I am grateful for this opportunity to serve the Society.

I accepted this honor and job with a considerable feeling of humility. I also accepted it with a considerable feeling of the spirit of challenge. I have a feeling that it is relatively easy to exercise stewardship over a body like this, if a person does not attempt anything that offers a challenge, if a person does not attempt to come to grips with controversial issues, if a person elects to let things run along in their easy way—certainly, no one would get upset if this person did this, and certainly by this token a great deal would not be accomplished, and

this I have not done.

I believe I also stated in Asheville last year when I accepted this honor that I would meet, face on and head on, any of the problems that came up during the year, and that I would attempt to help those in the various committees and commissions to search out things that were of importance to this Society. This I have done.

Factually, I know that not all of you may agree with all of the things that have been done under my stewardship, and with the way and manner in which we have handled things, and with the conclusions to which we have come. But I have a feeling that there is not one among you here today, or those who haven't as yet registered and come in, who can say that you haven't had your fair day in court. I think that everyone in the Society during this year has had an opportunity before the Executive Council, before me personally, as I have gone around over your State, and certainly at the Called Meeting of the House of Delegates which was held this winter in Durham—none of you have been in any way cut off in your desire to be heard, or to express your feelings.

The fact that the Executive Council or the House of Delegates may not have seen eye to eye with you, and may have acted in a manner contrary to your feelings does not reflect that you have not had your day in court. And that is fitting, and that is the way it should be.

This business of the office of the President of your Society is no longer something to be considered as just an honor, a reward, as a pay-off for what a person in the Society has done in the past. There was a time when there was not a great deal of time or effort required, because we didn't have the problems that we have now in the era to which I am referring. But in the past decades, certainly the past two decades, this job has become more exacting, more time-consuming, and more important.

This year I have attempted, with but one or two exceptions, to go every place I have been invited in this State, and have spoken before every group who invited me, save

two that I can recall right now. And I would have gone there, had not a conflict prohibited it.

I have enjoyed this year immensely. I have traveled day and night. Just as a sidelight in figuring up my expenses, you know you all do pay me seven cents a mile when I am going to talk to you. For two months, the last voucher I submitted, I traveled over 3,000 miles in the State of North Carolina in my car attending the meetings and talking with you and to you.

The job has meant much to me. I am sure that I have gotten much more of benefit to me by learning the people of North Carolina, the doctors of North Carolina, by being with you and talking with you, and getting, let us say, a broad spectrum, or a panoramic view of medicine in North Carolina.

I am sure that that has been of more benefit to me and has broadened me more than any contributions which I may have made to your Medical Society that will serve as benefit to your Society. But be that as it may, it has been a pleasant year. It has been a hard year, and sometimes it has been a trying year; but I have enjoyed it.

That brings me to a little story that I heard the other day. Some of you may have seen it. Dr. Ryan Killian, who was called by President Kennedy back to Washington just last week to help to straighten out our foreign intelligence snafu of recent vintage—when called back this time, he told a little story about the young lady who went to her first cocktail party in Washington, and she had never had a drink before. As a matter of fact, she didn't know that a Martini or two that she was having actually contained alcohol, but she was at the cocktail party, and she had a couple of them, and she was flitting around having a good time, and her hostess came up to her and asked her how she was doing.

She said "I'm just having the finest time you ever saw; never had so much fun in my life." She said "As a matter of fact, I feel more like I do now than I did when I came in!"

And with that statement of feeling, which

is factual, I do feel more like I do now that I did a year ago when I came in.

I would like to get down to the factual part of my report to you. I would like to ask the indulgence of the Speaker, since the report of my stewardship is so intimately tied up with some of the reports which I have to make to you of the action of the Executive Council—I would like his indulgence to let me, at this time, consider that I am making also my report E-10 (Report of the Executive Council 1960-1961) in your program there. With your permission, I will tie the two together.

This portion I will read. It is a factual and clearly defined report, and I want to read it to you.

As you know the constitution, implemented by the By-Laws, gives authority to the Executive Council to act for the Medical Society in the interim between Annual Meetings of the House of Delegates. Of course, this in no way takes away the power of the House of Delegates to assemble in special meeting when the exigencies of any situation demands such consideration of exigencies either by Executive Council or the President and of certain petitioning quantity of the active membership of the Society.

Having exercised the responsibility of meeting, considering and acting conclusively upon matters concerning policy or the business of the Society in the above expressed interim the Executive Council is required to report its actions to the House of Delegates in Annual Meeting.

Therefore, as the constitutionally provided Chairman of the Executive Council, and as the President somewhat reporting this phase of stewardship, I have the duty to present to the House a document representing an abridged record of the Executive Council's proceedings and particular actions for the interim period of May 8, 1960 to and inclusive of meetings held to February 12, 1961. This involves more or less seven hundred fifty pages of typed reporter's transcript of the verbatim record of the three meetings on the dates of October 2, 1960, November 28, 1960 and February 12, 1961. The abridgement represented first nine pages of a typed document to which is

attached the 1961 budget recommended by the Finance Committee and adopted by the Executive Council October 2, 1960 and this budget has been, as by long custom, in successful operation since January 1961; then the abridgement further represents fifty-four pages of a type-set document of the November 28, 1960 and February 12, 1961 meetings of the Executive Council: All of which is submitted as a report of the authoritative action of the Executive Council during the interim period 1960 to 1961 Annual Meeting of the House of Delegates. The Budget referred to—you had copies in the mail for review; we have copies of it here—should be adopted by the House of Delegates and I so recommend.

[The motion that the Budget be adopted was duly seconded.]

SPEAKER KOONCE: Motion made and seconded that the Budget Report be adopted. Any discussion of this motion? If not, let it be known by saying "Aye"; opposed "No."

So be it.

[President Johnson continued:]

Obviously, we cannot single out every detailed item of the Council action, but I thought I would like to talk to you very briefly about the continuity of action of your Executive Council this year.

We had three meetings of the Executive Council prior to the meeting which was held here on Saturday, May 6th. We have had during that time, as those of you in the House of Delegates are aware, one Called Session of the House of Delegates.

On October 2nd, your Executive Council met and accepted the Chronic Illness Report to implement the Federal Kerr-Mills Act as was just enacted into law at about that time. That is just about the sum and substance of what your Executive Council did on its October 2nd meeting pertinent to the recommendation of your Chronic Illness Committee. And pursuant to that, we adopted the recommendation of the Committee for implementation of the Kerr-Mills Act with vendor payments, OAA, and MAA aspect of the Kerr-Mills Act as being desirable for your State Medical Society.

You will find in a minute or two that we

rescinded that. The thinking back of what occurred at that time when your Executive Council recommended to the House of Delegates—which action was rescinded—was that if the Federal Government is to pick up a group of people in society as wards of the Federal Government, that most of us practicing medicine and supplying services to these people as a source of income to ourselves, and a living, and a source of security to our family, were entitled to just remuneration for our services as rendered.

On October 2nd, also, we accepted a recommendation of the Finance Committee on Budget estimates for 1961, and adopted a budget of \$200,000 for the operation of the Society.

The next, we also adopted the recommendations of the Committee on Arrangements for a change in the Annual Session's program format relative to inclusion of additional scientific work and the unification of subject material, and the continuation of the sectional programs for 1961.

Many of you will remember that you, as a House of Delegates in Raleigh last year, gave us permission to alter the format of our annual scientific session's programs. Heretofore, the programs were of excellent individual scientific content. One of the better papers from each of our sub-sections which meet in the afternoons, were to be submitted, and were submitted over a period of years to the Program Committee to constitute our morning (General Sessions) scientific programs, and there was absolutely no continuity of thought whatsoever to the program. We could jump from one 20-minute period on fungus infections to the next one on brain tumors if we wanted to.

You gave permission to alter that so that we would not utilize papers from the special sections to set up our scientific program. That has been done. You authorized us to alter the structure of your annual program. I see many of you looking at it now. Those of us who were instrumental in that, and who have worked with it to produce it as you now see it think that that is an improvement over what we had, and we think that it is a much better program.

We have one apology to make. The company which does our printing obligated, in all sincerity and faith, to give us this program at least three weeks in advance of the meeting, and we got them this month, in May, and many of you did not get them at home. I hope there are enough copies to go around so that all of you can see it. We think that we are justly proud of this change.

You will also remember that we were authorized to discontinue the special section meetings on the basis that we were meeting here as physicians, as MD's, and not as fractionated parts of medicine, fractionated into individual specialties; the idea back of that being that if we are to survive as physicians and medical doctors, we must, somewhere in the run of each year, get together as physicians to handle, to study, to meet, and act upon those problems that are common to all of us.

However, there was such an amount of interest in continuing the specialty section meetings that due to this upsurge of interest exhibited, your committee rescinded its action, the power given it by the House of Delegates last year in Raleigh, and agreed to permit those sections desirous of having a meeting in the afternoon, either Monday or Tuesday, to have such a meeting, and I have carefully looked at the program content, the scientific content of some of the meetings that are scheduled for this year, and my only regret is that I cannot go to all of them, because in comparing them to latter years, this interest which was stirred up by the indicated threat of abandonment has produced and brought forward a marked advance in the quality of the programs that are going to be made available to you; and under those circumstances, *I think it is fitting and proper that we do go back and have the section meetings*, and I hope the attendance this year will be so good as to justify continuation of this.

The next meeting of the Executive Council was on November 28th, and the entire agenda dealt with the implementation of the Kerr-Mills Act, and the arrangement of services based on a minimal case load, and the establishment of a system of vendor pay-

ment for all disciplines complementing medical care of the aged. This was more or less a second stanza, same as the first, except that we explored it a little bit deeper and went more into detail on it, and included those areas adjacent to medicine, dentistry, and other things in our consideration.

The February 12th meeting dealt with the problem of the legislative program for implementing the Kerr-Mills Act on the basis of a realistic case load, cutting down the estimates given to us by the Department of Public Welfare in getting the picture into its proper perspective as to the number of people in North Carolina who should participate in this meeting.

It was at this meeting that, after due deliberation and due consideration, and after the Committee on Chronic Illness had held many, many sessions and conferred with many people in and about Raleigh who were influential in legislative circles in North Carolina, that we were convinced that it was the proper thing to do to rescind the action asking for full vendor payments for services rendered by physicians and others rendering professional service to this group, and agreed to ask for nothing in the financial implementation of this Davis bill that would be put into the pocket of doctors.

Now that does not mean—and this was a matter that was hard to get clearly understood pertinent to this bill—that we recommended to you in the Called Session of the House of Delegates that we did this work free; but it means that we recommended to you that we stay as we are now in supplying our service, and reserve the right to evaluate each of our patients ourselves, as we have done in the past; and those who cannot pay, who have a hardship worked upon them to pay, we would not charge. Those who could pay some, we would accept that; and those who could pay in full, we would expect payment in full. That is basically the way we have done business over the years, and that was the thinking back of *rescinding the request for vendor payments*.

Also at that meeting was devised the idea of the Medical Advisory Council to the State Board of Public Welfare, which was based

on the theory that that Council would have powers to recommend procedures in the administration of the care of the aged.

We couldn't conceive of this whole thing being thrown back into the lap of the Welfare Department in our State, with absolutely no representation on the State Public Welfare Board pertinent to medicine, or anything in the area paramedical. There are no doctors, no dentists, no druggists, no hospital administrators, or any of that group, on our Public Welfare Board in the State of North Carolina, and we had a feeling that we should recommend a Council broad enough and with specific background and training sufficient to be able to give good advice to this Board, to the better care of our people in North Carolina.

This meeting of the Council also voted to have a Called Meeting of the House of Delegates to be held on February 26, 1961, in Durham, to act specifically upon the implementation of the Kerr-Mills Act, and to consider a report from the Ad Hoc Committee on Blue Shield Implementation in North Carolina.

For me to tell you about that would be like carrying coals to Newcastle. Most of you were there. You know what happened. You know that the movement toward implementation of the Kerr-Mills Act passed almost unanimously. You know that the House of Delegates authorized the further education and the further evaluation of our component County Medical Societies pertinent to further implementing prepaid medical care and medical service insurance in North Carolina.

As the House of Delegates was closing, I, as President, asked for an indication of those present, not binding, as to their willingness to participate in further implementing prepaid coverage of our patients in North Carolina, and I would say that that was almost essentially a unanimous thing, too. I think there were six or eight who stood up against it in a group of 130.

That brings us up to date on my report to you on the Executive Council, save the action of the Executive Council taken since we have been here prior to this meeting in Asheville. That, with the permission of the

Speaker, and your tolerance, I will relate to you piece by piece as it is pertinent to the agenda under which we are operating today.

Again, thank you all for being such a good House of Delegates in the past, the past two times I have met with you. Thank you for permitting me to have this honor which you bestowed upon me, and I hope—I know I have done the best I can. I know that any failure to do those things that should be done, and those things that were right, did not come from a lack of desire. It only came from a lack of ability.

I thank you.

[The members of the House rose and applauded.]

SPEAKER KOONCE: That was an extremely nice gesture and well deserved by Dr. Johnson. *His speech will be turned over to the Committee for report back to us.*

We will now proceed with our business.

The Secretary, Dr. John S. Rhodes, do you have anything to add?

[Negative response.]

With your permission, we will run through this as fast as we can. Executive Director, Report of James T. Barnes.

Any additions?

MR. JAMES T. BARNES: No additions. They have the report in mimeographed form, and you have the report of the Audit in the Compilation, and we have the original copy of the original audit here, which we are placing in the record.

SPEAKER KOONCE: Now the report of the Executive Assistant, Mr. William Hilliard. Mr. Hilliard, do you have anything further to report?

MR. WILLIAM N. HILLARD: Not at the present, Dr. Koonce.

SPEAKER KOONCE: I am going to call for a motion to approve those three reports as they are listed in the Compilation.

[Such motion was made and duly seconded.]

It has been moved and seconded that these reports be accepted. Is there any discussion? If not, all in favor let it be known by saying "aye"; opposed "no." Carried.

The next is a report of the President of the Medical Auxiliary by Mrs. Hitch. I am

going to ask Dr. George Paschal if he will bring her to the rostrum please.

MRS. JOSEPH M. HITCH: Dr. Johnson, Distinguished Guests, and members of the House of Delegates: The Auxiliary is most appreciative of the fact that its President is invited to attend one of the sessions of the House of Delegates. The close relationship of the Medical Society and the Auxiliary has been most important to our growth and usefulness. I would like to take this opportunity to thank Dr. Johnson, his able assistants, Dr. McMillan, our advisor, long friend of the Auxiliary whom we miss today, Mr. Barnes, Mr. Hilliard, Mrs. Boutwell, and all the personnel at the Society office who have been most helpful to me this past year.

The financial aid given us by the Society is much appreciated, and for this we thank you. Most especially we thank you for the new aid for a Presidential secretary, for we realize that not all of our leadership has stenographic ability.

It is my hope that you will read the Compilation, but I would like to mention briefly what we consider our worthwhile activities:

You know, most of you, the tremendous amount of time given in community service, because this is given by your wives, who are leaders in your communities. We have supported both our state and national projects to a high degree. This year we have contributed almost \$2,800 to AMEF. I would like to mention at this point that this is greatly due to three small counties, Lincoln County, with a per capita giving of \$15, Stanly County, over \$11, Johnston County, over \$5. This has raised our per capita giving from 84 cents of last year to \$1.25.

We hope that in future years, North Carolina may be one of the leaders in contributing through AMEF.

We have completed our fourth endowment fund for the Sanatoria beds, and now we may proceed on our latest project, the Mental Health Research Endowment Fund. We already have almost \$700 in this Fund.

We have contributed almost \$1,100 to our Student Help Fund, and since 1955, this has helped fourteen students in medical schools.

We have helped in Health Career Recruit-

ment, community health conferences, mental health conferences, Civil Defense activities, and safety programs.

The latest call on the Auxiliary resources is Operation Coffee Cup. You will be hearing more of this from your wives. Records have been sent to every Auxiliary in our state, and we hope that our members will invite their lay friends in to hear that recording by Ronald Reagan. It is beautifully stated, and so sincere, and gives the reasons for opposing the King Bill. We hope to enlist the aid of our lay friends in opposing the passage of this Bill.

We also hope to stimulate our friends to write to our State Senators and legislators urging passage of the (Davis), Medical Aid for the Aged Bill, so that this enabling bill will allow the Kerr-Mills law to be implemented in North Carolina.

We believe that this is the type of assistance that our senior citizens need.

It has been a pleasure to be here today, and I thank you for listening. [Applause]

SPEAKER KOONCE: Thank you, Mrs. Hitch, for that report.

Further information as far as the activities of your Auxiliary is in your Compilation. I am going to take the prerogative of the Chair and approve her report without even asking for a motion.

The next is the report of the Councilors. I will call them as they come, and if there is any further additions, please say so; if not, pass.

First District, Dr. Brinn. I understand he is not here. He was contacted by telephone, and there is no further report.

Second District, Dr. Williams.

DR. WILLIAMS: No further report.

SPEAKER KOONCE: Third District, Dr. Bridger.

DR. BRIDGER: No further report.

SPEAKER KOONCE: Fourth District, Dr. Beddingfield.

DR. BEDDINGFIELD: Nothing further.

SPEAKER KOONCE: Fifth District, Dr. Garrison.

DR. GARRISON: No further report.

SPEAKER KOONCE: Sixth District, Dr. Paschal.

DR. PASCHAL: No further report.

SPEAKER KOONCE: Seventh District, Dr. Bivens.

DR. BIVENS: No further report.

SPEAKER KOONCE: Eighth District, Dr. Johnson.

DR. H. JOHNSON: No addition.

SPEAKER KOONCE: Ninth District, Dr. Murphy.

DR. MURPHY: No change.

SPEAKER KOONCE: Tenth District, Dr. Sams.

DR. SAMS: Nothing to report.

SPEAKER KOONCE: I think you must be worn out from yesterday.

Do I hear a motion that the reports of the Councilors be approved as listed in the Compilation?

[Such motion was made and duly seconded.]

SPEAKER KOONCE: The motion has been moved and seconded. Is there any discussion of the motion? All those in favor let it be known by saying "aye"; opposed "no."

The next is a report on the canvass for General Practitioner of the Year. I think the Rural Health Committee under Dr. Vernon Jeter has done an excellent job in this as well as other things, and with your permission, I would like to ask Dr. Jeter if he will take over and introduce those who will speak.

DR. R. VERNON JETER: Mr. Speaker, the Rural Health Committee and Committee on Annual General Practitioner Award respectfully submits two names in nomination for the General Practitioner of the Year. They are Dr. George Mackie from Wake Forest, and Dr. Bryan Whitfield, of Murphy.

We have a brochure here on Dr. George C. Mackie, and I will now call on Dr. Hugh McManus to give us four or five minutes' dissertation.

DR. HUGH McMANUS: Some twenty-odd years ago, on a warm spring afternoon (the first class after lunch when everyone was about asleep) a mild mannered, soft spoken associate professor at Wake Forest College Medical School was holding his annual review class in pharmacology. He was calling on each student in turn, asking them the dosages of various drugs that came to mind as the class proceeded. Suddenly, and with-

out any warning, he shifted three rows to the left and said "Charlie, what's the dose of nitrate of soda?" Without changing his expression, Charlie Beavers (now of Greensboro, I believe) answered, "400 pounds to the acre, Doctor." With a faint smile on his face, the Professor said "Mighty poor land around your neck of the woods, Charlie. Up around Yadkinville, it only takes 250 pounds to the acre."

This, among many episodes that are so fondly remembered by his students (a few of whom are now in this room) demonstrates the down to earth, simple, effective, communication that George C. Mackie of Wake Forest, North Carolina, has had with those of us who were privileged to be at his knee during our formative professional years. This characteristic embellished with wise discipline of his inherent brilliance has, in my opinion, endowed for him a place in his community, and state, that few men rarely, if ever, achieve.

A short time before arriving in Asheville, I was handed an article written about Dr. Mackie by a person that I consider to be one of the most brilliant and profound thinkers of our time. Dr. A. C. Reid, Christian gentleman, philosopher, intimate friend, and patient of Dr. Mackie for forty years. The title of Dr. Reid's article is "Men Doctoring," and I quote. In his celebrated lecture *The American Scholar*, Ralph Waldo Emerson says that a scholar is "man thinking." George C. Mackie is "man doctoring."

At Harvard University, I was able to stand by a statue of Emerson and ponder words from his pen; but how can I point out in a few lines the treasures of a man whom I have known more than 40 years as a student, colleague, neighbor, a friend and as my physician?

Dr. Mackie is, first of all, a man who reflects manhood at its best. In inherent ability, in intellectual alertness, in comprehensive information, in sound scholarship, in social grace and religious faith and devotion, he is a person whose accomplishments are at the same time our despair and our joy, and whose standards excite appreciation, inspire excellence, and arouse ambition.

He was born November 12, 1902 in Yadkinville, North Carolina, of the lineage of prominent pioneer families who settled in the Yadkin River Valley around 1750. In 1934, George married Kathleen Gilmer Robinson, a member of one of Philadelphia's finest and most influential families, and in line with the superb, George and Kathleen have established their own home as one of such culture and refinement that it is a benediction to Wake Forest and to a much larger area as well.

Two sons, James Wilson, a graduate student at Cornell University, and George C. Jr., an undergraduate, exemplify the quality of their parents and their home.

Dr. Mackie's formal education both revealed and disciplined his unusual capacity. He graduated with honors from Wake Forest College, the Wake Forest College School of Medicine, and the University of Pennsylvania School of Medicine. In addition to earning three degrees, he participated in baseball and football and he was elected to membership in several honor societies and fraternities.

Upon completion of his internship in the Philadelphia General Hospital, he served as Resident Consultant in Neurology in the Pennsylvania Hospital for four summers. In 1930, he became Associate Professor of Physiology and Pharmacology in the Wake Forest Medical School, was promoted to the rank of Professor the next year, and he held that position until the Medical School was moved to Winston-Salem in 1941, when he elected to remain in Wake Forest.

He was physician to Wake Forest College from 1941 to 1956. He has been physician to Southeastern Baptist Theological Seminary since 1951. In 1945, he became a life member of the American College of Physicians.

His learned publications became a manual of physiology, a manual of pharmacology, and articles published in the *American Journal of Physiology* and in *Southern Medicine and Surgery*. Moreover, Dr. Mackie, the man, is a citizen interested in and helpful to almost every worthy enterprise in the town of Wake Forest and in the surrounding community. Modest to such a degree that he scarcely lets one hand know what

the other does, he has given generous support to churches, schools, and other institutions; and it is safe to say that almost no important civic development either private or public is undertaken in the Wake Forest community without his counsel.

If Wake Forest community were to designate a man as its first citizen, George Mackie would be the immediate unanimous, enthusiastic choice. Such is a brief evaluation of Dr. Mackie the man, but the statement is, of course, partial and incomplete.

He is also in the finest sense "man doctoring." From the point of view of a host of laymen, it is difficult if at all possible to name a general practitioner who, in skill and devotion, is Dr. Mackie's superior. Dr. Mackie's sympathy and compassion and devotion are boundless. For him every patient is an important "somebody." Extreme remoteness or inaccessibility in a rural area is no deterrent. Bad roads do not stop him, and physical exhaustion seems never to slow him down.

As benefits the character of a great physician, his love for people, his sympathy for them and his awareness of his mission as a doctor constantly impel him. I, who for 30 years have had Dr. Mackie as my family physician, must speak of his curative treatment as a host of people who know him would do, in the general terms that reflect a nature of a great man "doctoring." Professionally firm as the situation requires, his words are kind and his hands are gentle.

What greater reward can any physician expect than to have such words said of him by people who know him best?

I take tremendous pride in offering to you, from Wake County, George C. Mackie, in nomination for North Carolina's General Practitioner of the Year. George C. Mackie, physician, neighbor, friend, philosopher, intellectual. A down-to-earth representation of what every man aspires to be.

I wish you could see the contents of this brochure.

SPEAKER KOONCE: Now speaking on behalf of Bryan Whitfield is William McLain.

DR. McLAIN: Dr. Johnson, Dr. Koonce, and Delegates: I have the honor today to

place before you for consideration a fine country doctor from Cherokee County Medical Society. I think you all know that we are the most blessed of the County Medical Societies of the State of North Carolina. In fact, we are actually closer to the capitals of three other states than we are to Raleigh. We are not the tail that wags the dog, unfortunately.

But we have a practitioner who has spent 27 years practicing in that area, and we are proud of him, and we would like to present his name.

Dr. Whitfield graduated from Tulane University in 1920. He interned in the Charity Hospital in New Orleans. He was in general practice until 1928, and '28 he entered post-graduate work surgery at the University of Pennsylvania. He stayed there about two years. He was, at 30 or 31, assistant at the Crippled Children's Hospital in Elizabethtown, Pennsylvania.

At 23 or 24, he worked at the Operation Clinic in Bradens, Baltimore. He has post-graduate work in Harvard, and Children's Hospital in Boston.

He operated and went with the Murphy General Hospital since 1947, when it was put into commission. He has always practiced general medicine and general surgery, and is a remarkably fine man.

He is at present surgeon for TVA, the Civil Service, Southern Railway, Louisville & Nashville Railway; and since his start, he has been a member of the Episcopal Church and a Sunday school teacher there.

He is a veteran of World War I, and, at present he is a member of the County School Board, which is quite a job. We have three superintendents of schools in our county, very little income, and a continuous war.

He, as other doctors in Cherokee County, has practiced the last year without one single complaint, and I admire him. I am retired, thank God, and I don't have to worry about it. But that is the most depressed portion of the State of North Carolina.

About a little over a year ago, when I went up there, tragedy fell on that area. For the first time in the history of the South, Georgia, Tennessee, North Carolina, and

South Carolina, APCH's put out of business our main cash industry, and it is still out, and it may be if all of you gentlemen remember the fine branch waters that we have up there, we may eventually get back into business. But Dr. Whitfield has never complained.

I am proud to put his name before you, and I really hope you consider him.

SPEAKER KOONCE: Thank you.

Yesterday, the Executive Council made a recommendation to the Committee on By-Laws which will be presented to you a little later, but these brochures that are on the winning candidate will be put in the permanent files of the State Medical Society, because it is believed they can be better preserved there.

Dr. William Sams stated that he didn't want to give his up, but we figured that you could get a photostatic copy for the winners to keep themselves, but we did feel that it would be a nice gesture, and a rather good thing for the history of the State Medical Society if we had brochures of this type in our permanent historical records.

The vote for the General Practitioner of the Year will take place by written ballot. I would like to appoint Dr. Ralph Garrison of Rockingham as Chairman of the Tellers, Dr. Nichols of Morganton, and Dr. Best of Clinton, if they will act as Tellers, and if you will vote for one of these two men, we will announce the winner as soon as that comes in; and with your permission, for several reasons, we will present the winner at the meeting of the House of Delegates tomorrow, rather than now.

I would like now to call on Dr. Beddingfield to introduce to us a very illustrious guest.

DR. EDGAR BEDDINGFIELD: Thank you, Mr. Speaker.

As most of you know, for several years, it has been the custom of the Society to participate in the Science Fair Program here in the State. In the Science Fair Program, the State Awards are given to the winner in two divisions, the physical sciences division and the biological sciences division.

In addition to our participation of the Science Fair Program to the extent of sub-

sidizing monies, we have also expressed an interest by picking a winner for the Medical Society whose exhibit is most nearly related to medicine. We have also invited the winner to come to our Annual Session and display the exhibit.

This year the winner that was picked was Miss Pamela Haynes of the Granger High School in Kinston. She is here with us. Her exhibit will be on display with the rest of the exhibits. It has to do with tuberculosis immunity.

So I would like at this time, she will talk to you down at her exhibit—to introduce Miss Pamela Haynes and her mother, Mrs. Henry Haynes, from Kinston. [Applause]

Thank you very much. Miss Haynes has said that she intends to put her name in for premedical school and for medical school, and we are all glad of that. Those of you on Admissions Committees take note.

SPEAKER KOONCE: It looks like medicine is going to improve in the future!

I had a letter from Dr. Strosnider stating that he was very sorry he could not attend because of the illness of his wife. Also communications from Dr. Millard Hill and Dr. Elias Faison.

Dr. Johnson has a report, according to a letter, that he would like to bring up.

PRESIDENT JOHNSON: The first thing I want to do is to continue my report on my stewardship.

I made a note to myself on the few notes that I have from which I talk that I would be ungrateful, unkind, and unpardonable, if I did not refer to and take time to bring to your attention the excellent work that is done by those in our Executive Offices in Raleigh, and so I am unpardonable.

I want you to know that those in our office in Raleigh are the most devoted, hard-working employees that any of those in the state or nation have. I must single out some for you.

Jim Barnes is a devoted worker for this Society. Without him, I do not know what we would do. He is ably assisted by Bill Hilliard, by Annette Bountwell, by Mrs. LaRue King, who is here with us now, and by many, many others in this office; and so I

beg pardon that I didn't include them in my first report.

There was a letter sent to the Executive Council from the State of Nebraska which the Council authorized you should be made cognizant of. It was in the form of a motion passed by the House of Delegates of the Nebraska Association pertinent to some action coming before the House of Delegates of the AMA. I had assumed that they would hope that your Executive Council request that you take similar action.

This reads as follows:

Whereas, the American Medical Association is in need of an immediate, continuous, and positive all-out Public Information campaign conducted by an outside agency specializing in this field; and

Whereas, the House of Delegates of the American Medical Association will be asked to approve a \$20 increase in dues in June, 1961;

THEREFORE BE IT RESOLVED, That the Nebraska State Medical Association does not approve this increase in dues if the above indicated campaign is not initiated and carried out at once; and

BE IT FURTHER RESOLVED, That this increase in dues shall be reviewed in three years, and cancelled if unnecessary for the purpose for which it was initiated; and

BE IT FURTHER RESOLVED, That a copy of this resolution be distributed at once as follows:

1. Board of Trustees, American Medical Association
2. For introduction into the House of Delegates of the American Medical Association
3. Every state medical society
4. All county societies in the United States in large metropolitan areas

This was considered on a motion duly seconded, and after discussion it was put to a vote, and the motion to table action on this was carried.

We did not feel, as an Executive Council, that we could go along with some of the information that was discussed several years ago—when we initiated hastily a similar program. In discussing it, I referred to it as

the Whitaker-Baxter fiasco. I think we did get into a fiasco when we hired public relations people.

Therefore, your Executive Council did not go along with this recommendation, but did request that its delegates be cognizant of its action, and use good, conservative judgment in their voting on this proposition in New York this June.

SPEAKER KOONCE: Do I hear a motion to approve the action of the Executive Council yesterday of receiving this as information?

[Such motion was made by Dr. Faison and duly seconded by Dr. Hill.]

SPEAKER KOONCE: Is there any discussion of it? It was the feeling of the Council that we should not tie the hands of people by such a resolution. All those in favor of the motion approving the action of the Executive Council let it be known by saying "Aye"; opposed "No." So be it.

I see our tellers now approaching the podium. May I announce Dr. Mackie is the winner. [Applause] Dr. Mackie is not here today. I will ask that he be here tomorrow afternoon to be presented to us.

The next is a report of the related organizations, in your Compilation of Reports before you.

First is the report of the North Carolina Board of Medical Examiners, Dr. Combs.

Dr. Combs is not here, so I assume there is no further report.

Report of the Hospital Savings Association in your Compilation. Is there any addition to that? I assume not.

Report of the Hospital Care Association. No additions to this.

Report of the American Medical Education Foundation, Dr. Garrison.

DR. RALPH B. GARRISON: Mr. Speaker, members of the House of Delegates: I am very happy to report that this is the first time during the past three to four years that we as doctors in North Carolina have made any contribution anywhere nearly approaching the amount of money that we receive each year from the American Medical Association Educational Foundation for our three medical schools.

As you heard in the report from the

Medical Auxiliary, they were responsible for around \$2800 of the total amount received.

In North Carolina each year, we give as alumni to the three medical schools, approximately \$105,000, and through AMEF, we receive for these medical schools each year, approximately \$6000 apiece. Each year we have sent a personal letter to the members of the Society and tried to enlighten them that in giving to your medical school that you can give through AMEF, and it will not affect the over-all amount that the medical school will receive from AMEF. In other words, it can be earmarked and returned for the school of your choice, and this service is rendered by the American Medical Educational Foundation without charge for services rendered.

Percentagewise, in giving, we are about 48th in the United States, and yet in the amount of money given to the medical schools, we rank about 16th in the United States. And the purpose of me taking your time at this session is to try to impress upon you again that in making your donations to the medical school, that you can do so through AMEF, earmark it for the school of your choice, and it in turn will not affect the money from other sources that the medical school will receive from AMEF. They give the same amount to the 88 medical schools throughout the United States. Thank you.

SPEAKER KOONCE: If you don't watch him, he will sell you a ticket to the boosters' club.

Next is a report of the members of the North Carolina Medical Care Commission. Dr. Brewer! Do you have anything to add?

DR. J. STREET BREWER: Nothing further to add, Mr. Speaker.

SPEAKER KOONCE: With your permission I should like to call for a motion for approval of the reports of those five related organizations as listed in the Compilation. Do I hear such a motion?

[Such motion was made and duly seconded.]

SPEAKER KOONCE: Any discussion? All those in favor let it be known by saying "Aye"; opposed "No." Carried.

Number six is a report of the Committee on Constitution and By-Laws. Dr. McMillan unfortunately had a death in his family and is not here. Dr. Schoenheit.

VICE SPEAKER SCHOENHEIT: Mr. Speaker, I make this report in the absence of Dr. Roscoe McMillan. I am sure we are all sorry to hear of the recent tragedy of his son in his family.

Your Committee on Constitution and By-Laws met at Mid Pines, Southern Pines, North Carolina on Friday, September 30, 1960, during the Conclave of the Committee-Commissioner Conference.

The Committee first refers to those actions of the 1960 House of Delegates in reference only to Articles of the Constitution read for the first time in 1960 and required to be ratified at the 1961 meeting of the House of Delegates as follows:

On page three of your Constitution and By-Laws, Item number one, Article II, Purposes of the Society: On item number one, Mr. Speaker, strike out the word "entire" in the second line so as to make it read: "The purpose of this Society shall be to federate and bring into one compact organization the medical profession of the State of North Carolina."

I move the adoption of that amendment.

SPEAKER KOONCE: Gentlemen, if you remember, according to our Constitution and according to our By-Laws, the things that we are talking of right now are changes in the Constitution which were brought up and passed last year. The Constitution, as you know—a change in the Constitution can only be ratified at the subsequent meeting one year after it has been brought forth and first acted on. Therefore, this is a ratification of the action taken last year.

Do I hear a second to this motion?

[The motion was duly seconded by Dr. H. Johnson.]

SPEAKER KOONCE: Any discussion? Do you understand the motion? All those in favor let it be known by saying "Aye"; opposed "No." So be it.

VICE SPEAKER SCHOENHEIT: On page seven, Item 2, Article VIII, Section 1, delete, the last sentence, which reads "The

foregoing shall constitute the voting members of the Executive Council."

I move the adoption of this amendment.

SPEAKER KOONCE: I hope you understand this. Well, the reason for this, and the reason it was brought up last year—with this sentence, "The foregoing shall constitute the voting members of the Executive Council"—that includes Vice Councilors, which would make a council of rather than 17 men of around 27 men, and it was never the intention that the Vice Councilors would be members of the Council, except in the case of death or resignation of the Councilor. That is the purpose of that.

Do I hear a second to the motion?

[The motion was duly seconded.]

SPEAKER KOONCE: Is there any discussion of it? Are you sure you understand what you are voting on? Those in favor let it be known by saying "Aye"; opposed "No." So be it.

VICE SPEAKER SCHOENHEIT: On page five, item number 3, Article IV, Section 6, amend as follows: At the end of Section 6 after the word "Journal" insert the following sentence: "If any member eligible for life membership elects to continue paying his dues and assessments, he shall then continue as an active member with all active membership privileges, including the privileges of holding office and receiving the Journal."

I move the adoption of this amendment.

SPEAKER KOONCE: Could I have a second to this motion before it is discussed?

[The motion was duly seconded by Dr. Poteat.]

SPEAKER KOONCE: Now do you understand this? This was passed last year to be ratified now, that life members prior to 1960 did not have to pay dues, and those who had paid dues on a feeling of compulsion, if they wanted their dues refunded, it could be done.

Now it was passed last year that life members prior to 1960, if they continued to pay their dues, will be allowed to vote and hold office and get the Journal. If not, they will not. That's prior to 1960. Now that has been passed. This is ratification. Is there any

discussion? I am going to ask Mr. Barnes to speak to this.

MR. BARNES: I wanted to explain that in connection with this action last year, the Executive Council and the officers of the State Society instructed us to write to *each former life member* and query him whether he desired to have his 1960 or 1959 voluntary dues payment refunded; or, secondly, if he desired to continue to pay dues in the future. Of some 500 or more former life members, all except 26 decided that they did not want to pay dues. So their dues, whatever they had paid for the year 1960 or 1959, were refunded last year, some better than \$5000 in dues. So that there are now only 26 former life members who elect to pay dues, and those I presume, under the conditions of this By-Law, would continue to vote and hold office. The other 500 would not.

MEMBER [Lenoir County]: If a life member elects to pay dues, does he still receive his life member card each year? In other words, is he still a life member? Does he give up his life membership?

MR. BARNES: No, he continues to receive his life card.

SPEAKER KOONCE: The reason for this discussion, and the reason that I want to make sure that you know what you are voting for is because there has been a little bit of dissention in some of the County Societies in taking away a life member's right to hold office in a State Society.

I am corrected—they are not denied the privilege of voting, but denied the privilege of holding office.

The reason I am asking for this discussion is to see if there is any dissention about this; because if this is passed now, it goes into the Constitution.

DR. WILKINSON [Wake Forest]: Mr. Speaker, it seems to me that this is penalizing a lot of our older physicians who are now retired and do not have the means to pay dues as they were so situated when they were in active practice. And it appears to me that this is a penalty to our older members, and I personally do not favor this amendment.

SPEAKER KOONCE: Now this is just

the reason that I am taking enough time to bring up this discussion, with the distinct understanding now if this motion is passed as of now, it goes into effect. If it is defeated, the floor will be open for a new motion which can be passed now, but will have to be ratified next year.

MEMBER [Craven County]: What offices are these that we are speaking about in the State Society? Would you enumerate those, please?

SPEAKER KOONCE: That would not necessarily mean chairmen of a committee, but any office, elected office, Councilor or President, or what not.

MEMBER: Delegate?

SPEAKER KOONCE: Not a delegate from the county.

DR. S. I. PATRICK [Lenoir County]: Does this influence any county elected officers or only state officers?

SPEAKER KOONCE: I am answering from a personal opinion; I don't see how it could. This only affects the state office. Nor would it affect the county allocation of delegates.

Do I hear any further discussion?

DR. G. W. MURPHY [Buncombe County]: I would like to ask, Mr. Speaker, if the Constitution provides at this time that life members cannot hold office, and do not receive the Journal.

SPEAKER KOONCE: Section 6, Article IV of the Constitution: "Life Members shall consist of those physicians who have been members of the Society consecutively for twenty years, and who have attained the age of seventy years. They shall be exempt from all dues and assessments, and shall be entitled to all of the privileges enjoyed by active members in good standing, except the privileges of holding office and receiving the Journal."

DR. MURPHY: Thank you.

SPEAKER KOONCE: Any further discussion? Are we ready for the question? All those in favor let it be known by saying "Aye"; opposed "No." All those in favor please rise. I think the motion has been carried. There are 75 for it. (A later standing recount recorded a vote of 90.)

Now, gentlemen, that is a part of the Constitution.

DR. G. E. BEST [Sampson County]: A change in the Constitution is a simple majority?

SPEAKER KOONCE: Yes.

VICE SPEAKER SCHOENHEIT: The Committee now makes reference to the By-Laws, more particularly those acted upon on one reading at the 1960 meeting of the House of Delegates.

Chapter X, Section 9, sub-section "w" by striking out the second sentence of this subparagraph and inserting in lieu thereof the following: All statements made to or testimony given by any person who has been invited to appear before the Grievance Committee or the Executive Council of the Society shall also be considered privileged communications and shall not render such persons or witness liable to any member of the Society."

I move the adoption of this amendment.

SPEAKER KOONCE: Is there a second to this motion?

[The motion was duly seconded.]

SPEAKER KOONCE: Any discussion? If not, all those in favor let it be known by saying "Aye"; opposed "No." So be it.

In answer to Dr. Best's question, I am wrong; it does take a two-thirds majority of the registered delegates. Dr. Herring, how many delegates do we have?

[The response was 136.]

Of 136, 75 is not quite two-thirds. Therefore, because of that, that motion was defeated.

[A recount was requested.]

SPEAKER KOONCE: A request has been made for a recount. All those in favor of the motion please stand. [This motion pertained to life membership.]

I have just had the question asked, "What motion are we voting on?" That is an amendment in the Constitution so far as life members are concerned. According to the vote, there are 90 members voting for it, which is two-thirds.

VICE SPEAKER SCHOENHEIT: Item number five, Chapter VII, Section 1, a revision of the By-Laws moving Watauga

County from the Eighth Medical District to the Ninth Medical District.

I move the adoption of this amendment.

SPEAKER KOONCE: Any second to this motion?

[The motion was seconded by many.]

SPEAKER KOONCE: Any discussion? All those in favor let it be known by saying "Aye"; opposed "No". So be it.

VICE SPEAKER SCHOENHEIT: Finally, in accordance with the recommendation of the Committee, I move that the President be authorized to appoint an Ad Hoc Committee for the study and survey of Councilor Districts, and recommend such changes in Councilor lines as appear advisable.

SPEAKER KOONCE: Do you understand that motion? First of all, is there a second to the motion?

[The motion was duly seconded by Dr. Poteat.]

SPEAKER KOONCE: There has been considerable feeling in the Society for many years that the districts should be redistricted, and this motion is simply to allow the President to appoint an Ad Hoc Committee, so that they can bring a recommendation back. It is not binding.

Any discussion? All those in favor let it be known by saying "Aye"; opposed "No." So be it.

VICE SPEAKER SCHOENHEIT: That is all I have, except to say respectfully submitted, Roscoe McMillan.

SPEAKER KOONCE: Gentlemen, if you understand, all of these are actions which were passed last year and reaffirmed.

DR. POTEAT: Could we have a recount of those opposed?

DR. BRUCE D. BLACKMON: I think we are getting crossed up on what we are voting on here. We originally started out raising the dues in order to raise money that was coming in. Our physicians that are of retirement age have brought to our attention the fact that they are not going to go along with this. Now then, we are winding up with about twenty-five of these men that are willing to go along and pay their dues, which means we are not getting any extra tariff to work with, and we are chang-

ing the ultimate goal that we were shooting at.

We have the Constitution as it was originally stated to the point that these men could not hold office in the Society.

Now then, this constitutional amendment that we are working on says that these men can hold office in the Society if they wish to continue to pay dues. Otherwise, they are not allowed to hold office.

We do have some men that are in that category now, Dr. Sams and some others. I feel that they should be allowed to hold office if they wish to go ahead and pay their dues; and if not, they should not be penalized for it. For that reason, I am changing my vote and changing my feeling about it. I think we should allow these men to pay their dues, if they would like, and hold office if they would like.

SPEAKER KOONCE: I don't know if I understand just what it is you said. My understanding from what you said is I think the way the motion was carried. You said that if they want to hold office and receive the Journal they should pay dues.

DR. BLACKMON: They should be allowed to pay dues and go ahead. The way the old Constitution said it, they could not hold office. Is that correct? Last year we were raised a tariff, and now we are giving them a chance to hold office.

SECRETARY RHODES: As I understand it, Dr. Blackmon, the present Constitutional provision provides that life members are relieved of all dues and assessments, and they have all the privileges except those of holding office and receiving the Journal. The purpose of this amendment was to permit any life member who wished to pay dues to remain as an active member and to hold office and receive the Journal. That privilege is given to him—

DR. BLACKMON: If he pays his dues now, he can hold office.

SPEAKER KOONCE: If he does not pay dues, he cannot hold office and have the Journal.

DR. BLACKMON: May I ask for another rising vote?

SPEAKER KOONCE: I am going to ask for a ballot vote, and I will ask the same

tellers that were tellers for the General Practitioner candidate if they will take that vote for the change in the Constitution which will allow them the privilege of holding office and receiving the Journal, if they pay dues. If they do not pay dues, they will not be allowed.

DR. J. H. ARNOLD [Chapel Hill]: It is not true that by passing this amendment we are giving the life member something which they are denied today and can gain under no circumstances if we don't pass this amendment. Is that correct?

SPEAKER KOONCE: That is my interpretation of it.

SECRETARY RHODES: As I stated a moment ago, the present Constitution provisions provide that life members are relieved of all dues and assessments, and they have all the privileges except those of holding office and receiving the Journal. This amendment accords to them the privilege on the basis of payment of dues to hold office and to receive the Journal. That is all it does.

DR. SAMS: Mr. Speaker, since my name was mentioned a moment ago, I would like to ask for clarification on this thing.

I paid dues to the State Society under the old setup for thirty years, and have been a life member for some time. Then the new law came along, and I am still—they set it up to 70 years, and that still gets me. I am 72 years old next December. I have been a member of the Council for thirteen or fourteen years. I am still a member. It looks to me like this thing is going to vote me right out of office.

What I want to know is, will this be retroactive?

SPEAKER KOONCE: Dr. Schoenheit, you are Chairman of this Committee. Is this retroactive?

Mr. Anderson, will you give us a legal opinion? If there are any further votes, hold them up so the tellers can pick them up.

MR. JOHN ANDERSON: If the old By-Law before this, page five, life membership description was adopted, and provided for life membership after paying dues for 30 years, and it did not have any limitation on the privileges of life membership such as

is in the By-Laws now, then you would continue with the privilege of holding office. Now I have forgotten what the old Constitution provided. But no privilege would be taken away from you by this present wording. The Constitution is not retroactive. Now that point is not involved in this proposed amendment, however.

The proposed amendment does not change the wording of the Constitution, which says that a person paying dues for twenty years and reaching the age of seventy shall be exempt from dues and enjoy all the privileges except holding office and receiving the Journal. The proposal does not change that in any way. It merely adds the privilege to the life members now under the new Constitutional provision—it gives them the privilege of paying dues, if they wish to do so, and receiving the Journal and holding office.

So the proposal does not take away from life member anything. It adds the privilege, as stated in the amendment. If there is any other desire to change any part of the present By-Laws in the present Constitution, it would require a new proposal.

DR. SAMS: Did I understand you to say a while ago, Mr. Anderson, that having been a life member under the old setup, that this new setup would not affect me and others just like me?

MR. ANDERSON: If you are a life member under the old Constitutional provision, you would still have all the privileges accorded you under that old provision.

DR. SAMS: I didn't want to feel that I was serving on the Council illegally.

MR. ANDERSON: You would still be able to hold office and receive the Journal as a life member under the former provision of the Constitution.

SPEAKER KOONCE: We have had a lot of chit-chat going on here. My interpretation of this, and everybody got me a little confused a minute ago—according to our Constitution, this change in the Constitution in no way affects those men prior to 1960. It gives, as of the present time, new life members under Section 6—and the statement that they shall be in good standing except the privileges of holding office and re-

ceiving the Journal—it is now giving them the privilege of continuing to pay dues and holding office and receiving the Journal. It has nothing to do with those men who reached the status prior to 1960.

DR. BREWER: Mr. Speaker, if it does not apply to those who were in that status before 1960—what I was going to suggest to take care of some of the older men who served in the Society, that we put in a provision that this did not apply to any life member who had been a member of the Society and paid dues for forty years.

SPEAKER KOONCE: That was an interpretation that we placed on it last year when we agreed to refund the dues to those men who wanted it and who had paid.

DR. BREWER: When you said it didn't apply to those before 1960, you clarified what I had to say.

SPEAKER KOONCE: Now I would like to say that for the motion, 105, and against, 20; confused, 3.

Is there any further question about this? If not, it has been affirmed.

PRESIDENT JOHNSON: One thing further pertinent to the report of the Committee on Constitution and By-Laws, a proposition was offered to the House of Delegates subsequent to the report as presented by Dr. Schoenheit, relative to the merger of five of our Eastern counties, Martin, Washington, Tyrrell, Beaufort, and Hyde, requested that the Constitution and By-Laws be changed so that they might be merged into a five-county society.

It was moved, seconded and carried, that this merger be approved by your Executive Council; and I move, Mr. Speaker, that the House of Delegates reaffirm this action of the Executive Council.

[The motion was duly seconded.]

SPEAKER KOONCE: The motion has been made and seconded. Is there any discussion? If not, all those in favor let it be known by saying "Aye"; opposed "No." So be it.

I would like now to call on Dr. Street Brewer to give a report on the Committee on Integration.

DR. J. STREET BREWER: Mr. Speaker, President Johnson, Secretary Rhodes, Mem-

bers of the House of Delegates: I think this is the first time I have ever had to come before this Society with an apology. Owing to circumstances beyond my control and the control of our Committee, we were not able to get out the report of the Committee on Integration in time to have it in the hands of the Delegates before we met here. One of the reasons was that we had in April, or in late March, a meeting with the Committee from the Old North State Medical Society. At that time, it was agreed that the report would be submitted to the members of this Committee of the Old North State Medical Society, not for their approval, but for any suggestions that they might have.

On top of that, as you probably learned, two weeks ago, just as I was getting this report out, my associate was taken critically ill with a coronary thrombosis, and that delayed me about a week.

I was not even able to get this report submitted to the members of this Committee, but I did submit it to the President of the Society, Dr. Johnson, for his approval. I am going to ask Mr. Barnes to read it.

As some of you have probably observed, I am now suffering from vision trouble, a couple of cataracts getting ready to be removed. I would ask Mr. Barnes to read this report, after which I will say another word or two.

MR. BARNES: Members of the House of Delegates, Medical Society of the State of North Carolina, Gentlemen:

The Committee Liaison to Study Integration of Negro Physicians into the Medical Society of the State of North Carolina, which has been inactive for a year or more, was reactivated by President Johnson soon after he assumed office in May 1960. The Committee held its first meeting in July 1960 at which time President Johnson and Executive Director Barnes were present. The Committee, which then consisted of Dr. Ben Royal, and Dr. Paul Whitaker and myself as Chairman, reviewed with Dr. Johnson and Mr. Barnes the present status of the integration problem. Mr. Barnes pointed out that only two Negro physicians, both from Winston-Salem, had exercised their opportunity and joined the Medical Society as scientific members. They had also joined the American Medical Association. Mr. Barnes also called attention to a few other applications which had been made to the Society for full membership but were returned for the reason that we have no status for full membership in the Medical Society of the State of North Carolina for Negro physicians. The Committee also discussed with Dr. Johnson and Mr. Barnes some problems that the Executive Office was having with certain of our component county medical societies which either did not understand or did not want to comply with a direc-

tive from Headquarters Office that only applications from Negro physicians for scientific membership could be accepted or that this (scientific membership) was the only class of membership in the Medical Society open to Negro physicians.

Dr. Royal, Dr. Whitaker and I recommended to Dr. Johnson that he exercise his executive authority and enlarge the Committee to at least seven members. After reflection and consideration Dr. Johnson did enlarge the Committee, appointing Dr. J. P. Rousseau of Winston-Salem, Dr. James Hemphill of Charlotte, Dr. H. P. Perry, Jr. of Greensboro and Dr. Joseph W. Hooper, Jr., of Wilmington to the Committee.

The second meeting of the Committee was held in Raleigh on August 26, 1960, all members being present except Dr. Perry who was unable to attend. The whole matter of integration of Negro physicians was reviewed for the benefit of the new members of the Committee. I should add here that Dr. Johnson and Mr. Barnes were present at this meeting. The original three members of the Committee were very glad indeed to have the counsel of these younger members. And I may say here that they have brought to the Committee a fresh and newer understanding of present day ideas and conception of the integration problem that was perhaps not expressed in the three older and original members of the Committee. After full and frank discussion the Committee adjourned to await developments and to meet again at the call of the Chairman.

In February of this year, 1960, the Old North State Medical Society through its Liaison Committee wrote President Johnson and requested a meeting with representatives of the Medical Society of the State of North Carolina to discuss the question of membership of Negro physicians in the Medical Society of the State of North Carolina. Dr. Johnson turned the matter over to our Committee on Integration and I, as Chairman, in correspondence with Dr. Rann, Secretary of the Old North State Liaison Committee, arranged a meeting for March 26, 1961 in Raleigh. At 2:00 o'clock p.m. on that date your Committee met with the Negro physicians at the Sir Walter Hotel. There were, I believe, nine members of the Old North State Medical Society which included the President and Secretary present. After the meeting was formally open and the background of why we were there reviewed, Dr. Charles Watts, President of the Old North State Medical Society, stated the reason why they had sought the meeting and stated quite frankly that their objective was full membership in the Medical Society of the State of North Carolina with all the rights and privileges appertaining thereto. Other members of his group spoke and expressed their feelings in a frank and friendly manner. After this the meeting was thrown open for general discussion and the members of our Committee and President Johnson and Mr. Barnes and Dr. Zack Owens, past president, explained quite frankly that in securing scientific membership for the Negro physicians we had done all that could be reasonably expected at this time. We discussed with them the reason why it was neither practical nor possible to secure full and complete membership in the Medical Society of the State of North Carolina for Negro physicians. We discussed with them the mores involved in racial relations in North Carolina and told them of our disappointment that more of their members had not seen fit to join the Medical Society of the State of North Carolina as scientific members. They in turn explained their reasons for not doing so, which they said was largely motivated by outside pressures, such as, while other members of their race were pressing for recognition and their rights as American citizens as they understood them and they therefore could not afford to accept what they considered second class membership and an inferior status. They told us that they felt they had not been kept properly and officially informed of what

the Medical Society of the State of North Carolina was doing in regards to their membership in the Society. In turn we said neither had we been officially informed of what the Old North State Medical Society was doing and thinking and why more of their members had not joined with us.

In the discussion the members of the Old North State Liaison Committee indicated that they were satisfied with the type of membership available for the Mecklenburg County Medical Society. When it was pointed out to them that the Mecklenburg County Medical Society had stopped having any social activities such as dinner meeting or ladies night banquets, they said that was true and it made no difference to them if the Society did not sponsor any social functions and they indicated the State Medical Society sponsoring no social functions would be agreeable with them. As I understand this exchange of ideas, it means that the members of the Old North State Medical Society are, as frankly stated, asking for full membership in the Medical Society of the State of North Carolina even if that should mean the abandonment of any social activities under the sponsorship of the Medical Society. In other words, they want the opportunity to enjoy as much or as little of the activities of the Medical Society of the State of North Carolina as the white physicians do.

There has been some feeling among the membership of the Medical Society of the State of North Carolina that the Negro physicians in not accepting scientific membership have "broken faith" with your Committee. This is an error. In its original report your Committee did feel and hoped that scientific membership would meet the needs and aspirations of the Negro physicians as expressed by them. But the report of your Committee recommending scientific membership was not submitted to them for consideration. Perhaps it should have been but be that as it may, while we were disappointed that they did not see fit to accept scientific membership, it is unfair to charge them with "breaking faith."

This meeting was held in a friendly and frank manner with open and free discussion between two different groups and races of medical men. It is the feeling of your Chairman, and I believe the other members of our Committee and I hope of the Committee from the Old North State Medical Society and its officers, that much was gained and an understanding of each others position by this free and frank discussion among us. We stated quite frankly that we did not feel that we could get full membership for them in the Medical Society of the State of North Carolina. And I believe that they in turn better appreciated our position and it is our hope that they will review and re-evaluate the matter of scientific membership in our Society and reconsider whether or not they should accept it. However, they did not hold out any hope that favorable action in this regard would be taken.

Your Committee, after three meetings as outlined above and after prayerful consideration of the issues and problems involved, recommend to you, the House of Delegates of the Medical Society of the State of North Carolina, that the Medical Society of the State of North Carolina stand by the action it has already taken, namely; that qualified Negro physicians may be admitted to the component county medical societies and the State Society as scientific members with the right to participate in all business and scientific sessions, to vote and hold office. We also recommend that no further action be taken by your body at this time regarding membership in the Medical Society of the State of North Carolina by Negro physicians.

DR. BREWER: Mr. Speaker, if I may say a few more words, your Committee has tried to handle this with about as much delicacy as we possibly could. Those of you who read

the papers and read the reports know that it is a matter that must be handled with delicacy and judgment. That we have tried to do.

I didn't have time in that report to set out in full some of the feelings of the Negro physicians. I think, Mr. Speaker, if I may be indulged for a moment, I should say something about that.

They say to us that they are not concerned primarily with social functions. It makes no difference to them whether we have any social functions or not. They say that they intend, if they become members of the Medical Society of the State of North Carolina, to carry on their activities of Negro Medical Society, the Old North State. But they say that if the Medical Society of the State of North Carolina sponsors social functions, that they then want the privilege of attending those functions as they see fit; that if they are denied that privilege, then they are set aside or designated, inferentially, as inferior or second class members.

Be that as it may, that is their feeling. I am reporting these things to let you know what they said to us. It is too much to put in that report. One Colored physician told about the city in which he lives in this state, and during sometimes last year, the County Medical Society was having a meeting, and they were having some noted speaker from afar. Those who come from afar are always noted; you know that. Anyway, he was talking, I believe, on cardiovascular disease, and this man said that there was something that the Negro doctors in that city needed to hear, not only for their own benefit, but for the benefit of their patients, and "we were planning to go. It had been stated that it was sort of a public affair." He says, "But then we learned that it was a dinner meeting, and that we could not attend a dinner meeting, of course, but that we could come in afterwards at the side door," as he said, "and sit down in the back of the hall and hear the lecture."

He said, "Well, you men don't know how we feel about that because you have never had to experience that state of affairs."

Talking about the social functions, another one said, "As long as the State Society

sponsors this banquet that you have, then we think we should be entitled to attend it." He says, "Now if the banquet were sponsored by some other organization," the alumni association for example—and the University, of course, couldn't do that, because they are already integrated. It has to be Duke or Wake Forest. Wake Forest or Duke couldn't do it, because they are going to become integrated. So that is out. That is just giving us some of their thinking.

Since that meeting, one of them indicated that they thought the Negro physicians ought to have a member of the Board of Medical Examiners, and that is about the status of the thinking.

Gentlemen, the report is my considered thinking after talking with the members of my Committee at various times. As I have stated at the outset, I did not have the time to submit the report to that Committee, and if there are those of the Committee here today that would like to speak to it, I would be glad for the Speaker to recognize him.

SPEAKER KOONCE: Thank you, Dr. Brewer.

PRESIDENT JOHNSON: This letter that I am supposed to read to you is a letter addressed directly to me by Dr. Charles D. Watts, who is President of the Old North State Medical Society, and it further sets out some of their thinking. This letter was received subsequent to the report which Dr. Brewer has submitted to you through the reading of Mr. Barnes. I believe that it might be a little bit enlightening to all of you if I read this letter. It will only take about two or three minutes.

Let me take this opportunity to express the appreciation of the members of the Liaison Committee of the Old North State Medical Society for the opportunity given us to express our views on the problems of membership for Negro physicians in the North Carolina Medical Society. I think the manner in which the discussions were conducted was commendable and demonstrated that it is possible for us to work together with mutual respect and dignity in this area, although we do not always agree.

We appreciate the restraint and the patience shown by your members there, although I am sure we did not get what we were looking for, that is the say, full membership in the North Carolina Medical Society, but I have the feeling we are nearer to it than we were prior to this meeting.

It has occurred to me since the meeting that some other areas of compromise should be discussed other than the ones presented. I would like your reaction to an approach similar to the school approach, that is, allow each local society to make its judgments in

the matter. I believe you will agree that in reality it is a local problem in a way, and that the State Society is saying to the local societies that you cannot move forward in this matter, even if you should desire to. If this problem could be moved to the local level and be solved there area by area, I think some progress could be expected. Let the local society offer the type of membership to all the men licensed in the state. We recognize that some of these things must be changed in stages, we just don't like to say that it has to be gradual and do nothing. I think the word gradual has fallen into disrepute because it has become identified with doing nothing so often.

I recall as we were discussing this matter at the meeting, there seemed to have been some attitude registered by someone, I believe possibly you, that it would be desirable to open the admission to all the members of the Old North State as a blanket type thing rather than to open it on an individual basis. The proposition did not appeal to me at the moment and I didn't take the opportunity to speak on the subject. I would like to say, that I think what we want is to be treated like every other physicians and not have any special blanket membership, in other words, I would think that each local society should accept applications and sponsors, as I believe is your present custom, and that the men should be admitted on their individual merits. I think, in the long run, this would be preferable because, while we don't want to be specially treated to stay out, we don't want to be specially treated as we are taken in.

Another proposition that has come to my thinking I would like your reaction to is the question of a staged type of procedure, that is, the scientific membership would be offered with an understanding that it is a stage in the change from older procedure.

A staged type of membership with a definite understanding that if we accepted a scientific membership that would not be the end of the matter, but that it would be kept open for discussion proceeding on to full membership at a very early time, possibly a year or two.

As you are aware, the examining board is appointed by the North Carolina Medical Society and this in essence makes you an agency of the state government. I wonder if you would look favorably towards appointing one of our members, someone that we would suggest, to the examining board until full membership was a reality.

Under these circumstances, it may be possible for us to go back to our group and present the matter again for some consideration to the end that we may look forward to working out these differences.

Dr. Brewer has asked me to send him a copy of this letter, which we are doing, and I understand that you two had planned to discuss it prior to and during your meeting in Asheville.

We will be holding our annual meeting in Greensboro in June, and if you have some observations or reactions after your meeting that you think would be worthwhile for our group to discuss, we certainly would appreciate having them presented at the time.

Again, allow me to thank you for your cooperative attitude in approaching this problem and accept my wishes for a successful meeting in Asheville next month.

My reply, dated May 4, was:

Dear Dr. Watts, thank you for your letter of April 26. I, too, feel that there is a much better understanding between the Liaison Committees of our two Societies. This in itself is a step forward toward the solution of our mutual problems.

I am sure that by now you have received a copy of the report which Dr. Brewer will make to the House of Delegates next week. Following our meeting, I will write you again and give you my impressions and observations, as to the reaction of the membership.

We both realize that there are problem areas which

cannot be overcome at this time, but if an honest effort is made by most societies to overcome them by evolution, I think that progress can be made. Thank you again for your letter, and you may expect to hear from me before your meeting in June.

Now I would like to go back to one thing that was referred to pertinent to membership on the Licensing Board in the state. He says, "As you are aware, the Examining Board is appointed by the North Carolina Medical Society." That is in error. The Examining Board is elected from the floor by the membership of the Medical Society of the State of North Carolina, and the type of membership which is offered to them entitles them to nominate and vote and participate in the election of the Examining Board.

I don't know whether that was an attempt to try to draw some reply that permits them to alter their thinking along the manner of an approach legally.

As Dr. Brewer stated, it was perfectly evident and obvious that these doctors are in essence having a terrific amount of pressure put on them to obtain and gain status. Frankly, they said that while their children were participating in sitdown strikes in eating places, and marching in front of shows and other places that discriminated against their race, that if they, who were themselves recognized by their race as their elite, their highest educated group, most respected group within their race, accepted anything except that which was exactly the same as offered to others in society, that they could not hold faith themselves with their children, and those who were participating with equal rights in other fields.

We had a very pleasant meeting. They understand, I think, every one of them, that they are not getting any place now, but they also expressed the opinion that they can accept nothing else.

I have a feeling that they know that in reality they do not have any legal counts against us with the availability of the scientific type of membership. I do want to say one other thing. When I spoke to this in Raleigh last year, I was the one who said—and it was publicized throughout the press in the state—that they had broken faith. At that time, I was working under the impres-

sion that they had seen a copy of the report which was submitted to the House of Delegates in 1955 and approved by the House of Delegates offering them scientific membership.

It was brought out in this meeting, which we recently had with the representatives of the Old North State Medical Society, that they did not have a copy of this report submitted to them, nor was a copy submitted to them for some while, months after the meeting of the two groups in Kinston. Therefore, they had no copy of this to take and submit to their membership or to their Executive Council, or ruling body. Therefore, it follows that there could have been no breach of faith, since their body had taken no action on the original motion.

SPEAKER KOONCE: Is there any other member of this Committee that would like to speak to this? Now do you understand that if we approve this report, we approve the action that we stay as we are?

PRESIDENT JOHNSON: This is a report of the action of the Executive Council on this matter yesterday. A motion for the acceptance of the Committee's report and the Executive Council's full endorsement was made with the recommendation that this report as submitted be accepted by the House of Delegates.

I move you, Mr. Speaker, that the House of Delegates accept this report in full.

[The motion was duly seconded by Dr. Sams.]

SPEAKER KOONCE: It has been moved and seconded. Is there any discussion? If not, all those in favor let it be known by saying "Aye"; opposed "No." Carried.

Now, gentlemen, we have the reports of the Commissioners. I am going to ask your opinion as to what you want to do. Agenda item number 2 under E will take quite some time. We are now running a little bit late. It is quarter of five. I think in all probability, we can get some of these Commission reports off this afternoon. However, if you want to go straight through the schedule and take up Number 2 this afternoon, I am quite sure that will take a good forty-five minutes. Do I hear any disapproval of my changing the format and skipping around in

the Commissions? I am taking those that I think we can get through with in the next half hour. If I don't hear any disapproval, I will do that.

I will ask Dr. Johnson if he will comment on the organization of his Commissions, just to brief you on it again.

PRESIDENT JOHNSON: Just a brief comment, and I think better than a comment would be to read to you Chapter Ten of our Constitution and By-Laws, Section 1: "Committees of this Society, except the Committees on Nomination, Grievances and Negotiation, shall be grouped by the President with the approval of the Executive Council in commissions as follows: Professional Service Commission, Public Service Commission, Public Relations Commission, Administration Commission, Annual Convention Commission, Advisory and Study Commission.

"The President with the approval of the Executive Council shall appoint a Chairman for each Commission to serve for a period of one year, whose duties shall be to direct and coordinate the work and activities of the Committees assigned to the Commission of which he is Chairman. Through the Chairmen of such Committees, the Commission Chairman shall report to and shall be responsible to the President and Executive Council for the performance of the work and functions of the Committees assigned to his Commission, and shall be an exofficio member of each said Committee."

This is something that we did a couple of years ago that has proven very efficient and very beneficial. It has expedited and streamlined the work of your Society by coordinating under a commissioner a group of related committees. This organizational function has been taken on in other medical societies, and other societies in the United States, and is becoming very popular. Some of our larger national societies are following the lead that we have here. This was purely for the purpose of acquainting you with what we are talking about here, and the reports that you are getting from the Commissioners. It has been a most successful thing for your State Medical Society.

SPEAKER KOONCE: Before I start call-

ing on the Commissioners, I would like to thank one committee, and that is the Committee on Credentials, Dr. Herring, Dr. Whitley, and Dr. Wilkerson. They have a very thankless job and get very little recognition, and we would like to thank them for the Chair for what they have done today and in the past.

The first we will take up will be the Administration Commission, Dr. Wayne J. Benton.

DR. WAYNE J. BENTON: No additional report.

SPEAKER KOONCE: Does any committee on his Commission have any further report to make? [No response] If not, do I hear a motion that the Administration's Report as listed in your Compilation be *approved*?

[Such motion was made and duly seconded.]

(See pp 19 Compilation of Reports for Reports of the following committees.)

SPEAKER KOONCE: It has been moved and seconded. Is there any discussion? If not, all those in favor let it be known by saying "Aye"; opposed "No." The "Ayes" have it.

The next is the Annual Convention Commission, Dr. R. Beverly Raney. Dr. Raney, do you have anything further to report?

DR. R. BEVERLY RANEY: No further report.

SPEAKER KOONCE: Any committee from your commission have any reports? [No response]

Do I hear a motion that the report as listed in your Compilation be *approved*?

[Such motion was made and duly seconded put to a vote and carried.]

(See pp 21 Compilation of Reports for Reports of the following committees.)

SPEAKER KOONCE: Number four, Professional Service Commission, Dr. Paschal.

DR. GEORGE W. PASCHAL: Mr. Speaker, I have no further report.

SPEAKER KOONCE: Does any of your committee chairmen have any other report? [No response] Do I hear a motion that this commission's report be *approved*?

[Such motion was made, duly seconded, put to a vote and carried.]

(See pp 50 Compilation of Reports for Reports of the following committees.)

SPEAKER KOONCE: We will skip down to Number 8, Committee on Grievances, Dr. Reece. Do you have any further report?

DR. JOHN C. REECE: No further report.

SPEAKER KOONCE: Do I hear a motion that the report as listed in your Compilation be *approved*?

[Such motion was made, duly seconded, put to a vote and carried.]

(See pp 60 Compilation of Reports for Reports of the following committees.)

SPEAKER KOONCE: Number 9, Committee on Negotiations, Dr. Hollister.

DR. WILLIAM F. HOLLISTER: No further report.

SPEAKER KOONCE: Do I hear a motion that this report be *approved*?

[Such motion was made, duly seconded, put to a vote and carried.]

(See pp—Compilation of Reports for Reports of the following committees.)

SPEAKER KOONCE: Number 10 has already been taken care of.

(See pp 25 Compilation of Reports for Reports of the following committees.)

We will now go to the Public Relations Commission, Dr. Poteat.

DR. HUBERT M. POTEAT: Mr. Speaker, there is a change only in one Committee report, that being the General Practitioner of the Year Award. At the present time, no man may be renominated for this honor after he has been defeated. The Commissioner approved, and the Executive Council approved, that a man may be renominated after a lapse of one year. Mr. Speaker, I move the adoption of this report.

[The motion was duly seconded.]

SPEAKER KOONCE: It has been moved and seconded that this report be *approved* with that addition. Is there discussion? If not, all those in favor let it be known by saying "Aye"; opposed "No." So be it.

(See pp 26 Compilation of Reports for Reports of the following committees.)

Next is the Public Service Commission, Dr. John R. Kernodle.

DR. KERNODLE: No further report.

SPEAKER KOONCE: Any of your committees have any further reports? [No re-

sponse] Do I hear a motion that the commission with its committee reports be *approved* as listed in your Compilation?

[Such motion was made, duly seconded, put to a vote and carried.]

SPEAKER KOONCE: The next is the Committee on Nominations. I am going to ask President Johnson if he will give that report.

PRESIDENT JOHNSON: The Nominating Committee for 1960-61 was composed of the following members: Dr. Zack D. Owens, Dr. Karl B. Pace, Robert M. Fales, Robert M. McMillan, Malory Pittman, Paul F. Maness, Jesse Caldwell, Charles Norfleet, James S. Raper, and Jake Shuford, Chairman.

The Committee met at the Sir Walter Hotel, Raleigh, at twelve noon on the 26th of March, 1961, and the entire membership was present. The following recommendations from the Committee are presented to the House of Delegates for their consideration:

1. For President-Elect, Dr. John R. Kernodle.

For Vice-President, Dr. John Payne.

For Second Vice-President, Dr. Sam Holbrook.

For Speaker of the House, Dr. Donald Koonce.

For Vice-Speaker of the House, Dr. John Reece.

For North Carolina State Board of Health for four-year term, Dr. John R. Bender, and Dr. Charles R. Bugg.

For Constitutional Secretary, three-year term, Dr. John Rhodes.

For delegates to the American Medical Association and alternates, for two-year terms beginning the first of January, 1962, Dr. Elias Faison; alternate Dr. E. W. Schoenheit. Dr. Amos Johnson; alternate, Dr. W. F. Hollister.

For one-year term beginning January 1, 1962, Dr. C. F. Strosnider; alternate, Dr. John Tayloe; Dr. Millard Hill; alternate, Dr. William Nicholson.

I might stop here just a moment to let you be acquainted with the fact that we have

gained another delegate, giving us four delegates to the AMA. That is why you have four submitted here.

For district councilors and vice-councilors 3 year terms:

First District councilor: Dr. T. P. Brinn; vice-councilor, Quinton Cooke.

Second District: Dr. Lynn Williams; vice-councilor, Dr. Ernest Larkin.

Third District councilor: Dr. Dewey Bridger; vice-councilor, Dr. William A. Green.

Fourth District councilor: Dr. Edgar Beddingfield; vice-councilor, Dr. T. T. Herring.

Fifth District councilor: Dr. Ralph Garison; vice-councilor, Dr. Harry Summerlin.

Sixth District Councilor: Dr. George Paschal; vice-councilor, Dr. Rives Taylor.

Seventh District councilor: Dr. Edward Bivens; vice-councilor, Dr. Charles Stuckey.

Eighth District councilor: Dr. Harry Johnson; vice-councilor, Dr. John Burwell.

Ninth District councilor: Dr. Thomas L. Murphy; vice-councilor, Dr. Paul Deaton.

Tenth District councilor: Dr. William A. Sams; vice-councilor, Dr. Otis Duck.

The Committee recommends that the invitation issued to the North Carolina State Medical Society by the City of Greensboro, North Carolina, and the Guilford County Medical Society extending their facilities for the use as a site for the annual meeting be accepted. It is recommended that the year of 1964 be set aside for this purpose.

Respectfully submitted for the Committee, Jacob H. Shuford, M.D., Chairman

DR. SHUFORD: Mr. Speaker, with regard to the nomination for the AMA delegates, perhaps it would be wise if the Chair would explain the system of staggering.

SPEAKER KOONCE: In the Constitution, or rather the By-Laws, it states that the House of Delegates—that is, the delegates to the AMA—be elected according to

the rules of the AMA in staggered terms. Well, we have only had three delegates, and we couldn't very well stagger them in equal numbers and terms of office. So that the custom has been in the past to elect all three delegates for the two years, and it has been manipulated so that that would work. Now that we have four delegates, we can abide by the AMA By-Laws, and that is the reason for the rule that staggered term of 2 delegates for 2 years and 2 delegates for 1 year is now in effect.

Any discussion of this report of the Nominating Committee? Do I hear any motion from the floor?

[A motion of *acceptance* was made and duly seconded.]

SPEAKER KOONCE: The motion has been made and seconded. Is there any discussion? All those in favor let it be known by saying "Aye"; opposed "No." *Those officers are duly elected as of now.*

We have done very well, I think. We don't have too much to do for tomorrow. I am not going to ask for a recess. All we have to do tomorrow is to take up the Advisory Study Commission headed by Dr. Shuford with the Blue Shield and his other committees. We have already taken up all other reports of committees. We will have an organization of the Nominating Committee which will be held tomorrow at two o'clock promptly. Then we have presentation of the General Practitioner of the year, and any other new business or old business which may come before the floor. We should be able to get through comparatively early. I will see you tomorrow at two o'clock.

[On motion made and duly seconded, the delegates voted to recess at four-fifty o'clock.]

MONDAY AFTERNOON SESSION May 8, 1961

The House of Delegates reconvened (from recessed meeting) at two-twenty o'clock, Dr. Donald Koonce, Speaker of the House, presiding.

SPEAKER KOONCE: We don't have to have a quorum to proceed, as the quorum was here yesterday and is listed. We can

proceed with the House of Delegates meeting.

If there are no objections, I think those of us that are here would like to get started and get through and let the stragglers come in as they see fit.

[Announcements]

Now we don't have too much business to attend to. I don't know how long it is going to take to complete what we have to do. We have to take up the Advisory and Study Commission of Dr. Shuford with their report from the Blue Shield. We have three elections to make, and the nominations have to come from the floor, the Medical Care Commission, the Hospital Saving Trustee, and the Hospital Care Trustee.

We are to present the General Practitioner of the year with his award, and we have the caucus for the election of the Committee on Nominations. Other than that, I don't know of any business that we have, unless it comes up under New Business. So with your permission, we will go ahead, and I will call on Dr. Shuford for further reports on the Advisory and Study Commission.

DR. JACOB H. SHUFORD: If you will look on page 18 of your Compilation of Reports, there are a few changes, a few comments I would like to make on some of the committees.

Under number 1, the Committee on Auxiliary Advisory and Archives of Medical Society History, the Executive Council approved a \$400 sum of money to be spent for the procuring and the printing and binding of the Archives, as they are developed by this Committee.

I would like, under II, the AMEF, to compliment Dr. Ralph Garrison and his committee for the amazing change, as you will see under paragraph one, in the total amount that was contributed through AMEF last year. He practically tripled that amount.

Under the Blue Shield Committee, there were no particular changes, except I call your attention to item number two of report, the development of the Medical Rider, which will include the first day payment by co-insurance clause requiring the patient to

pay 50 per cent of the first three-day coverage. And this was done to attempt to encourage the participation of the general practitioner, the pediatricians and the internists. If you want to see the details of that, you may look under the Blue Shield Committee Report, which is in the Compilation also.

Paragraph five of the Blue Shield Committee Report was not approved by the Executive Council.

On page 19, I call your attention to the Committee Advisory to Student AMA, VIII, with just the comment that I believe that is one of our most valuable and most worthwhile committees in the State Medical Society. The format has been pretty well established now after two or three years, and it is functioning nicely, and certainly has been well received by the students in the three medical schools in North Carolina.

Under "Other Committees" I call your attention to Number 2, the Committee on Relative Value Fee Schedule, and wish to thank and compliment Dr. Everett Bugg and Dr. Alfred Hamilton, and Dr. Louis Roberts for the amazing and terrific amount of work that was put forth.

Mr. Barnes does have stencils on this—the fee schedule is so thick—and he will reproduce them on request. And so if you desire one, just send your request to their office. (Copies on hand for reference.)

And now, under "Other Committees" page 19, number 1, the Ad Hoc Committee to Study Blue Shield, I believe that we reported this to the Special Called Session of the House of Delegates on the 12th of February this year in Durham. This Committee has not met further. As you recall, we named the members of the Committee, and we gave you the decision or the recommendation of that Committee, which was relayed to the Executive Council and to the House of Delegates, and no action was taken, no definitive action or official action.

The Ad Hoc Report is on page 77, and it consists actually of the letter that was sent to each member of the State Medical Society directing their attention to the activities and report and recommendation of the Ad Hoc Committee.

If I may, I would like, Mr. Speaker, to turn this back to you, and I will help you in any way I can.

SPEAKER KOONCE: I am going to call on Dr. Johnson, and ask if he will read the action of the Executive Council on Saturday concerning the question of Blue Shield.

PRESIDENT JOHNSON: Mr. Speaker, would it be permissible to give some of the background that led up to the action? Should I read this and give the background for it?

SPEAKER KOONCE: Yes.

PRESIDENT JOHNSON: I will give you the background first and then you will have a better understanding of what I am going to read.

I decided a month ago that it would be best if the Executive Council in Session attempted to have a hearing pertinent to all phases of the participation of the Medical Society of the State of North Carolina, and all of its individual members, in prepaid medical service insurance, that there was so many different angles of our insurance problem that were somewhat ill understood, there were so many different view-points expressed to me by letter, and to others in the Society by letter and by comment, by word of mouth, that it would be best if the Executive Council attempted to analyze the feeling, and then make a recommendation to this House of Delegates as a point of departure for settling our prepaid medical service insurance problems.

Saturday afternoon at two o'clock, when the Executive Council reconvened, we set aside two hours, and I had written, or had Mr. Barnes write, to certain people who had certain particular ideas about what we should do, or what we should not do, and we held what I thought was a very informative and very orderly hearing. We did not have debate. There were no personalities involved. It was a fact-finding kind of hearing, and everyone present had an opportunity to express their opinion as much and as long, within bounds, as they wanted.

When we finally closed the hearing and the Executive Council went into Executive Session, no one desired the floor to say anything further on the topic at hand. After

deliberation Saturday night, around nine-thirty or ten o'clock—considerable deliberation—the following motion was put and was passed unanimously by a show of hands of your Executive Council, and I bring it to you now for your perusal and approval or disapproval.

I move: That the Medical Society of the State of North Carolina inform the National Blue Shield Organization that after due deliberation and in full cognizance of the fact that this state will have two separate and distinct companies in competition, each with the other, goes on record as strongly urging the National Blue Shield to give full accreditation to the Hospital Care Association as an accredited Blue Shield Plan on an equal basis in all details as that Blue Shield accreditation presently accorded the Hospital Saving Association, provided the Hospital Care Association complies with other eligibility requirements, and that this be accomplished on or before December 31, 1961.

The motion was put to a vote and carried unanimously.

Now, immediately following that, there was another motion put, and this other motion was tabled.

I move: That in the event that Hospital Care Association complies with eligibility requirements and the National Blue Shield does not give full Blue Shield accreditation to the Hospital Care Association on or before December 31, 1961, that the Medical Society of the State of North Carolina consider withdrawing its endorsement, sponsorship, underwriting and otherwise sever all relations with any and all Blue Shield plans and emblem, and the Medical Society proceed to promulgate a program of professional benefits on both an indemnity and service basis, which would be made available to any purveyor of health insurance coverage approved by the Executive Council of the State Medical Society.

The motion was seconded, and on a motion made by Dr. Harry Johnson, it was tabled.

The discussion leading to the tabling of this motion was that this, in effect, might imply a threat to the National Blue Shield organization. It was discussed as to whether it was a threat or whether it was a motion of intent, and after a lengthy and learned clarification by our attorney, we decided that maybe we had better table it, and so it now is on the table of the Executive Council.

So you have one motion to consider before you and act upon, and as a member of the House of Delegates, I move you, Mr. Speaker, the approval of the action of the Executive Council.

SPEAKER KOONCE: Dr. Johnson, could I ask you to withdraw that motion for just a second?

PRESIDENT JOHNSON: Yes.

SPEAKER KOONCE: First of all, I would like to have a *motion made to approve this Commission's report, with the exception of this one thing*. Do I have such a motion?

[Such motion was made and duly seconded.]

(See pp 18 Compilation of Reports for Reports of the following committees.)

SPEAKER KOONCE: Any discussion of the Commission's report other than this one particular item? If not, all those in favor let it be known by saying "Aye"; opposed "No." So be it.

Now you may make your motion again.

PRESIDENT JOHNSON: Consider it made, sir.

SPEAKER KOONCE: The motion has been made that the resolution or action of the Executive Committee pertaining to Blue Shield be approved. Do I hear a second to the motion?

[The motion was duly seconded.]

SPEAKER KOONCE: The motion has been made and seconded. Now the floor is open to discussion.

Dr. Kornegay asked permission to talk to this, and we would be glad to recognize him if he would like to talk.

DR. KORNEGAY: Mr. Speaker, I am acting as a spokesman for a group of physicians throughout the state who are opposed to the formation of the proposed insurance corporation. A group within this group corresponded with all of the members of this Society recently, and we came here prepared today to present our arguments against the formation of the corporation.

Since the Executive Council has elected not to sponsor formation of the corporation, we have no presentation. Thank you.

SPEAKER KOONCE: Anybody else want to discuss this motion?

DR. FRANK JONES: This is a question.

Does the motion eliminate the possibility of the participation of the commercial carriers in a service plan which may or may not be offered by the Society?

PRESIDENT JOHNSON: I can only give you my interpretation of the motion. It does not include that specific point that you spoke to in the motion, but neither does it "include it out". It will take further action of the Executive Council and/or this body to do that. But I see nothing in any manner prohibitive at a later date of that issue being brought up and settled.

SPEAKER KOONCE: As a member of the Executive Council, I agree with what Dr. Johnson has just said. Now Dr. Alfred Hamilton has the floor, and after he gets through, if any member of the Executive Council wants to give their interpretation, why, he can do that.

DR. HAMILTON [Wake County]: Dr. Johnson, would you mind the inclusion of two amendment words into your motion? At Los Angeles, a year and a half ago, we ran into the absence of this inclusion, and the National Blue Shield was of the opinion that we had requested for Hospital Care only certification in reference to the service plan, and there was clearly no intent on the part of National Blue Shield to include, even if they approved of Hospital Care, the indemnity plan, even though it said, "under exactly the same circumstances." If you would include somewhere in that motion "both service and indemnity," that misunderstanding will not recur.

SPEAKER KOONCE: Unfortunately, I don't think Dr. Johnson can change the action of the Executive Council. He moved that the action of the Executive Committee be approved. Now if you want to make that amendment to the motion, it can be made.

DR. HAMILTON: Well, I should like to amend Dr. Johnson's motion that the action of the Council be approved to include—I think this better be approved.

SPEAKER KOONCE: You can do it by amendment.

DR. HAMILTON: I move, by amendment, there be included the terms "both service and indemnity" where it says in that motion "in exactly the same circumstances."

[The motion was duly seconded by Dr. Poteat.]

SPEAKER KOONCE: I will ask Dr. Johnson if he will read the amended motion.

PRESIDENT JOHNSON: That can be easily accomplished by inserting the phrase "including both indemnity and service plans." That is to be included—I will read the whole thing.

I move: That the Medical Society of the State of North Carolina inform the National Blue Shield organization that after due deliberation and full cognizance of the fact that this state will have two separate and distinct companies in competition, each with the other, goes on record as strongly urging the National Blue Shield to give full accreditation to the Hospital Care Association as an accredited Blue Shield Plan on an equal basis in all details as that Blue Shield accreditation presently accorded the Hospital Saving Association, including both indemnity and service plans, provided the Hospital Care Association complies with other eligibility requirements, and that this shall be accomplished on or before December 31, 1961.

SPEAKER KOONCE: That amended motion has been made and seconded. Is there any discussion? I have heard the question called, but I was criticized a little bit yesterday because I didn't ask for nominations from the floor on the elections.

Do you want any discussion of this or not? If not, all those in favor, let it be known by saying "Aye"; opposed "No." The Ayes have it, and so be it.

The motion is on the amendment. Now the original motion has been made and seconded. All those in favor let it be known by saying "Aye"; opposed "No." Carried.

DR. JONES: Does the group realize how they are voting?

SPEAKER KOONCE: I hope so.

DR. JONES: It was my thinking when you voted on it as an amended motion, you voted affirmatively on that, and then you cannot vote affirmatively on the original motion.

SPEAKER KOONCE: I am going to rule the amended motion passed, which will include the first motion.

Now before we close this matter, do you understand what we have done? I think you do. The motion was amended, or Dr. Hamilton requested Dr. Johnson to add to the action in the motion made and passed by the Executive Council that one phrase that was added and read by Dr. Johnson. The motion was passed and should stand.

Is there any question as to whether it should or not? I don't think there is.

With that in view, I am going to rule to that extent.

DR. MARVIN LYMBERIS: On the bottom of page six, it states, "On motion made, seconded and carried, the Ad Hoc Committee to Study Blue Shield was instructed that action of the House of Delegates of May, 1960, was such as to empower the Ad Hoc Committee and the Committee on Blue Shield to set up a third corporation without the necessity of further House of Delegates action."

I question this and would ask the Chair for a ruling on this matter.

SPEAKER KOONCE: That had been set up and was brought to mind at our meeting in Durham, that such action had been taken at Virginia Beach many years ago, and as I understand it now—and I want Dr. Johnson to clarify it—that Ad Hoc Committee does not exist at the present time; with this in view, there is no function for it.

PRESIDENT JOHNSON: I believe what Dr. Lymberis is referring to is that actually in Raleigh, the House of Delegates empowered the Ad Hoc Committee, with the approval of the Executive Council, to proceed and to set up. The action that was taken by the House of Delegates in the Called Session in Durham this past year I interpret as rescinding that by further empowering this committee, by implication, to educate and evaluate the feeling of the State Medical Society. That would supercede that, and therefore I would assume that the Ad Hoc Committee was in power until this action was taken by the Executive Council, which in its effect automatically left a void as to further duty of the Ad Hoc Committee, and I believe that that is all that is essential to terminate an Ad Hoc Committee. Does that clarify the situation?

SPEAKER KOONCE: Does anybody not understand this whole matter? If not, we will go ahead with our program. I should like to call on Dr. Edgar Beddingfield, who wants to make a short report concerning the Legislative Committee.

DR. BEDDINGFIELD: Gentlemen, because of some developments with our MAA

legislation (Davis Bill) in the legislature in Raleigh, it having been referred to the Joint Subcommittee on Appropriations, the Legislative Committee would like to request that those of you who might be from this list of towns that I am going to read out will remain in this room for about five minutes after adjournment of the House of Delegates. This is very urgent.

[The list was read.]

SPEAKER KOONCE: Now, with your permission, I should like to go ahead with election to members of different groups that we have to elect, Medical Care and Hospital Saving.

The *four year term* of Dr. Brewer is expiring on the Medical Care Commission. Any nominations from the floor for representatives to the Medical Care Commission?

DR. SAMS: Mr. Speaker, I rise to nominate Dr. J. Street Brewer, who has served for a number of years on this Medical Care Commission, and who has done a wonderful job. I move we re-elect Dr. J. Street Brewer.

SPEAKER KOONCE: You make that as a nomination.

Any other nominations from the floor?

[A motion was made that nominations be closed, which was duly seconded.]

SPEAKER KOONCE: All those in favor let it be known by saying, "Aye"; opposed, "No." Nominations are closed and that *unanimously elects him*, but we still have to go through it. All those in favor of Dr. Brewer's *election* let it be known by saying "Aye"; opposed "No." So be it.

Next is Hospital Saving Trustee, *four-year term* of Dr. V. K. Hart is expiring.

DR. SAMS: Mr. Speaker, for the same reason as applies to Dr. Brewer, I nominate Dr. V. K. Hart for our representative in the Hospital Saving Association.

SPEAKER KOONCE: Any further nominations from the floor? [A motion was made and duly seconded that nominations be closed.]

SPEAKER KOONCE: It has been moved and seconded that the nominations be closed. All those in favor let it be known by saying "Aye"; opposed "No." So be it.

All those in favor of Dr. Hart's *election*

let it be known by saying "Aye"; opposed "No." All right.

The next is the Hospital Care Trustee, *four-year term* of Dr. C. T. Wilkinson expiring.

DR. SAMS: Mr. Speaker, for the same reason, I nominate Dr. Charlie T. Wilkinson for a four-year term with the Hospital Care Association.

SPEAKER KOONCE: Any further nominations from the floor?

[A motion was made and duly seconded that nominations be closed.]

SPEAKER KOONCE: It has been moved and seconded that nominations be closed. All in favor let it be known by saying "Aye." Opposed "No." Carried.

All those in favor of Dr. Wilkinson's *election* let it be known by saying "Aye"; opposed "No." Carried.

I am going to ask Dr. McManus if he will bring Dr. George Mackie, our elected General Practitioner of the Year to the rostrum, and I would like to ask Dr. Amos Johnson if he will present him with this award and give him a few minutes to speak.

[The members rose and applauded.]

PRESIDENT JOHNSON: Dr. Mackie, what I am going to say has to be from the heart, because I don't have enough head to compose it, and I wasn't told that I was going to present this to you. I never had the opportunity of meeting you personally before, but I have had an awareness, a pleasant awareness throughout the past several years of my life, of you through association with those friends of mine in medicine who were given their undergraduate work, and some of them their work in medicine from Wake Forest. To say I don't know you would be a mistake; I do.

I have heard them over the years speak of you, and I am sure that no person who has ever received this award is more highly regarded by those who know you best, namely those who were associated with you and your students at Wake Forest.

As to the award, I can think of no better or higher award to reward the action of a person in this Medical Society for the good work which they have done for the Society, for the people of North Carolina, for the

good rapport which they have created for this Society, than this award of the General Practitioner of the Year.

So without any further comment, it gives me an immense amount of pleasure to give you this award on behalf of the Medical Society of the State of North Carolina for this year. Dr. Mackie! [Applause]

DR. GEORGE MACKIE: Dr. Johnson, Mr. Speaker and members of the House of Delegates, and members of the Society: Whether I deserve this or whether I don't, I am very happy to receive it, and I receive it with a great deal of humility and sincere appreciation, because I assure you that it came from my friends—I think I have a few—and I wouldn't want to omit the person who did all the work on the little brochure that we had. My wife did all of that, and I think she is due full credit for that.

I have no speech to make other than to say that I feel very deeply that the medical practitioners, the people who are practicing medicine in the State of North Carolina, have a great responsibility at the present time to carry on the work of being doctors to individuals and to families, and to treat people in their entirety, rather than treating one toe, or anything else. We have to have our specialties, but still, at the same time, I feel that the younger men coming along that are following us should always remember that when you treat a person, you are treating him or her, and you are treating the family; you are treating all of them at the same time.

You have got to hear a lot of in-law trouble and everything else to get along with them. You have got to hear it all in order to treat our patients and to do the best we can.

Again, I want to thank you for this honor, and the many friends who have done the work for me. I deserve no credit for any of the work. My friends have done it all. Thank you very much. [Applause]

May I have the honor of presenting Mrs. Mackie! [Applause]

SPEAKER KOONCE: It says now in this note that "So be it" is not conclusive in announcing an election. I would like to announce from the Chair that the three men

voted on have been elected and will be in office. Now if that doesn't satisfy everybody, I will change that.

The hour is approaching three o'clock, and I think it is close enough where we can hold our caucus. We put it at three o'clock purposely so that those who were coming primarily just for that procedure would be here.

The caucus is only to elect from the district members to the Committee on Nominations, and according to our Constitution and By-Laws, no man can succeed himself consecutively more than once. In other words, a man can serve on the Nominating Committee only two years consecutively. If he is laid out a year, he can be re-elected, but he can only be re-elected for two consecutive years.

According to this and according to the list of the members of the Nominating Committee, there are only four districts who will be allowed, or according to the Constitution will be constitutional in re-electing the present members of the Nominating Committee. They are the fifth district, the eighth, the second and the fourth. They are not compelled to re-elect their members, but they have the right to do so. The others cannot re-elect the men who have been on service for two years. Now, is that understood?

VICE SPEAKER SCHOENHEIT: Are sure about ten?

SPEAKER KOONCE: According to our list.

Now, without further ado, you see your district number listed on standards, going counter-clockwise.

[The meeting paused for the caucus.]

SPEAKER KOONCE: We will proceed with what business we have now and get through. Will you be seated gentlemen.

Every year there seems to be some misunderstanding in nominations of this type. I understand there has been today, and that is the question of a district electing a man for the Nominating Committee. A district has no political function in the structure of the Medical Society of the State of North Carolina. The delegates from that district do, and if a district nominates or in their opinion elects a man through the District

Nominating Committee, that is only a recommendation to their delegates, and their delegates do not have to abide by it.

The election of the Nominating Committee is by the component delegates of that district, and not by the District Society. I announce those elected to the Nominating Committee as follows:

The first district, W. A. Hoggard.

District number two, Karl B. Pace, Sr.

District number three, Glenn Best.

District number four, Malory Pitman.

District number five, Riley Jordan.

District number six, Lenox D. Baker.

District number seven, William F. Eckbert.

District number eight, Charles M. Norfleet.

District number nine, G. M. Billings.

District number ten, J. B. Anderson.

If these men will meet immediately with the Secretary of our Society, Dr. John Rhodes, in the Tropical Room of the George Vanderbilt Hotel, he will designate a temporary Chairman and will give instructions to the Nominating Committee as to their function.

One thing has been brought to my attention, and it has been requested that I ask you to refrain from doing it—not you, but all members of the Society. It seems that some of the members of the State Society are asking their wives to take their exhibit visitation cards by the various and sundry booths and having them punched, while we are probably either here or out playing golf, or what.

The purpose of having that card punched is to get the doctors to go to the booths, not their wives. So those of you who may have done it, we respectfully request that you not do it any more. I don't think that is fair to our exhibitors. (It is contrary to published rules authorized by the Executive Council.)

[Announcements]

DR. FRANK JONES: You were circulated last spring by the State Chairman of the Health Insurance Council asking for your suggestions as to how health insurance plans can be improved. We have a preliminary paper which takes up the suggestions. It has been received with very great

interest by the insuring companies in this country. They would like more of your opinions. I would like to pass on to you that the insurance industry has a very high respect for the medical profession in North Carolina and for the things that they are trying to institute.

I would think, also, that any suggestions that you might give to this group might be also of value to the group plans. So I hope that Dr. Shuford will approve that, too, in case we have some suggestions that come in generally.

At the booth downstairs, you may or may not sign the little prescription blanks that are in front of it, but anything that will help this business certainly is going to help us as practitioners of medicine. Thank you very much!

SPEAKER KOONCE: Now our scheduled business has been concluded. Is there any new business to come before the floor?

PRESIDENT JOHNSON: I want to make a motion, present a motion for the consideration of this group, and it should get a second, and then I want to talk to it a minute, to explain why. This motion is directed to the Committee on Constitution and By-Laws to amend Section 6, Article IV of the Constitution as follows, by striking out the words "except the privileges of holding office and receiving the Journal." In the second sentence of Section 6, and by placing a period after the word "standing" of such sentence, by striking out the third sentence of Section 6, reading as follows: "If any member eligible for life membership elect to continue paying dues and assessments, he shall then continue as an active member with all active membership privileges, including the privilege of holding office and receiving the Journal."

The effect of this amendment would be to make the life members eligible for and entitled to all of the privileges enjoyed by the active members in good standing. The adoption of the first amendment above proposed would actually render obsolete and ineffective the amendment to this section which was adopted yesterday by the House of Delegates. But in order to eliminate from the printed Constitution this amendment

adopted yesterday, the second amendment above is proposed. These amendments, if adopted today, must of course lie over from one year and be adopted also at the next annual meeting of the House of Delegates to become final and effective.

Now Donald said that I might discuss this just a moment, and that I would like to do, and then I will release the microphone.

What we did yesterday was give an intent, and it received a majority vote—what we did yesterday was perhaps good in intent, but what we did yesterday is much akin to processing, actually, a claim for a dollar by an insurance company when it cost a dollar and a quarter to process the claim.

The thing will be a burden to the home office to the extent that it will be writing letters of explanation and carrying on correspondence back and forth, attempting to clarify this thing. The collection of the dues from the few who will participate in this will in no wise amount to a great amount of money one way or the other. It is actually thought by the Secretary and by the Executive Director that it would probably be a losing proposition financially to do it.

So if we are fixing to set up something—and we have done it—that will in some manner offend some of our life members, and in doing it for a purpose that will not be of financial or other benefit to us, it would appear to me that we might just go ahead and have our life membership on the basis that we now have it and permit these people who have been participating in all our activities up to that age to participate on. I see no actual important reason why there shouldn't be anyway.

I therefore move you, Mr. Speaker, the adoption of this resolution.

[The motion was duly seconded.]

SPEAKER KOONCE: This is, in essence, to excuse myself a little bit for the parliamentary fiasco that occurred yesterday. I had purposely held off and tried to bring to your attention that if the motion made yesterday was defeated, a new motion could be made; but the motion made yesterday had to be presented to you because it had

been passed the year before, and it was a change in the Constitution.

As I understand the motion as it is now, it would simply mean that a man who reaches life membership at the age of 70, 20 year membership in the Society, will continue to have full privileges whether he pays dues or not.

Now the motion has been made and seconded. Is there any discussion?

QUESTION: This means that everybody would continue to get the Journal, all the senior members, and it would be just as it was before, when they get to be 70 or have been in 20 years?

SPEAKER KOONCE: Twenty years and reaching the age of 70. Is there any further discussion of this motion, which will be a motion that will nullify the action of yesterday, but cannot be ratified until next year, because it is a Constitutional change.

DR. CRAVEN: This chicken has been kicked pretty far, but it seems to me that the purpose of this amendment is to give some financial relief to older physicians who have quit. There has been a lot of talk about people shouldn't be retired at this age, just on account of their age. Why don't we have this membership, instead of having the age 70, state that when the physician stops practicing medicine, instead of having an arbitrary age 70. Or if he is disabled at 40 from a heart attack, or what have you, then put him on as a life member.

SPEAKER KOONCE: We have such a clause whereby on request it can be done.

DR. CRAVEN: I move that this be tabled and perhaps restated tomorrow after we have had a little time to think about it.

SPEAKER KOONCE: Before I have a second to this tabling motion which can have no discussion, I would like to state one thing. Understand this: If anything in the way of By-Laws is coming up that would have to be ratified tomorrow, it would have to be done today, but your Constitution can come up tomorrow and cannot be ratified for twelve months. A motion to table cannot be discussed anyway.

[The motion to table was duly seconded.]

SPEAKER KOONCE: All those in favor

of tabling this let it be known by saying "Aye"; opposed "No." The motion is denied.

Purely a matter of explanation: Any person in the Society, whether they be twenty-five years old or whatever age, when they are incapacitated totally, they automatically have a waiver of all their dues, and they do presently receive the full benefits. So that would not be a factor involved in the tabled motion.

DR. ARNOLD [Chapel Hill]: I was one of those responsible for the parliamentary fiasco yesterday, and I was one of those for plucking the chicken rather than the bear. I make no apologies for that. My motives were to do what I felt was best for the life members, and Dr. Johnson is doing even better. Therefore, I think his motion deserves our support.

DR. RAIFORD: As I understand it, this new amendment would simply rescind the action of yesterday.

SPEAKER KOONCE: It automatically would.

DR. RAIFORD: In other words, it would leave it just as it was before we took that action.

SPEAKER KOONCE: It would leave it as it is written until next year, when it would have to be voted on again.

DR. RAIFORD: Then if voted on next year and passed, it would leave it back to where it was before we adopted this amendment.

SPEAKER KOONCE: No.

DR. RAIFORD: How has it been changed?

SPEAKER KOONCE: It is changed to the effect, as I understand it, unless Dr. Johnson wants to explain it more, a life member, a man reaching 70 years of age with 20 years of membership in the Society automatically becomes a life member, and according to this would receive full benefits, including holding office and receiving the Journal, whether he continued to pay dues or not.

DR. RAIFORD: That is what I wanted to get clear.

[The question was called.]

SPEAKER KOONCE: The question has

been called for. All those in favor let it be known by saying "Aye"; opposed "No." I think that is two-thirds. We will declare it two-thirds. *Therefore, it will go on record to be brought back next year for ratification if we can get a two-thirds vote.*

[Announcements]

SPEAKER KOONCE: Is there any further business to come before this house?

[On motion made and duly seconded, the delegates voted to adjourn at three-thirty o'clock.]

TUESDAY AFTERNOON SESSION

May 9, 1961

The Second Meeting of the House of Delegates convened at 2:30 P.M. in the West Ballroom of the George Vanderbilt Hotel, Dr. Donald Koonce, Speaker of the House, presiding.

SPEAKER KOONCE: There will be no report from the resolutions committee because there are no resolutions. The only report we have on our agenda at the present time is the report from Dr. Wayne Benton on the President's two messages.

DR. WAYNE BENTON: Your Committee has studied the two messages of our President and finds them profound, appropriate to the occasion, and worthy of serious consideration. It is our belief that the Basic recommendations that we actively participate individually and collectively in the selling of the American public as to what constitutes good medical care expresses the sentiments of this House of Delegates, and we recommend *that this body adopt his message, thus making it an official statement of policy for the Medical Society of the State of North Carolina.*

I move its adoption.

SPEAKER KOONCE: Acceptance of the President's two speeches has been moved.

[The motion was duly seconded.]

SPEAKER KOONCE: Is there any discussion? If not, all those in favor let it be known by saying "Aye"; opposed "No." Carried.

Now, gentlemen, the floor is open for a motion on almost anything, even to adjourn.

[On motion made and duly seconded the delegates voted to adjourn at 2:40 o'clock.]

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA SPECIAL MEETING OF THE HOUSE OF DELEGATES

February 26, 1961

A Special Called Meeting of the House of Delegates of the Medical Society of the State of North Carolina held on Sunday morning, February 26, 1961, in the Crystal Room of the Jack Tar Durham Hotel, Durham, North Carolina, convened at ten-ten o'clock, Dr. Donald B. Koonce, speaker of the house, presiding. President Amos N. Johnson convened the meeting.

PRESIDENT AMOS N. JOHNSON: This is a Called Session of the House of Delegates of the Medical Society of the State of North Carolina.

I should like to ask Dr. George Paschal to say the invocation.

DR. GEORGE W. PASCHAL: Our Heavenly Father, we are grateful for the opportunity to meet in this land of freedom, and to have the privilege of sharing Thy bounty. Help us in our deliberations here today reflect our Christian heritage in reaching decisions which will rebound to Thy glory, and make us proud and worthy to participate as Thy servants. For Christ's sake, amen.

PRESIDENT JOHNSON: I will now turn the meeting over to the Speaker of the House of Delegates, Dr. Donald Koonce.

SPEAKER KOONCE: I should like to have a report of the Committee on Credentials.

[It was announced that 104 delegates were present.]

SPEAKER KOONCE: Dr. Rhodes, will you announce the quorum?

DR. JOHN S. RHODES: Mr. Speaker, I now declare there is a quorum present.

SPEAKER KOONCE: Now, Dr. Rhodes, do you have any special announcements to make?

DR. RHODES: No announcements, Mr. Speaker.

SPEAKER KOONCE: Gentlemen, as you know, we are here for special business, and *special business only*. According to your agenda, and your call, we are here for two

problems: First, consideration of the implementation of the Kerr-Mills Act; second, consideration of the projection and control of a Blue Shield program.

According to the rules of order, only those two items can be discussed or voted upon; so please don't feel badly if I call you down if you digress from those two subjects.

A few items concerning the management of this Called Session. First of all, this is an executive session of the House of Delegates.

I have been asked several questions. First of all, can proxies be voted? They cannot. Only delegates can vote. In the absence of a delegate or an approved alternate, there is no vote.

Another question which can be brought up, can a member of an executive committee who is also a delegate have two votes? One vote per man is enough.

First of all, I should like to have Mr. Barnes read the motion from the Executive Committee to call this session.

MR. JAMES T. BARNES: This is an excerpt from the reporter's transcript of the minutes of the meeting of the Executive Council, February 12, 1961. The motion was made by Dr. Williams:

"Dr. Williams: I would like to so move, that this body recommend to our President that he call a Special Called Meeting of the House of Delegates of the Medical Society of North Carolina to consider further the Kerr-Mills Act.

"President Johnson: Would you include in that also, so that we can do a little something with this thing that Jake Shuford suggested, that they would have something relative to this Blue Shield—could you include that?

"Dr. Williams: And such other matters as may be pressing at the time, and that the state office ask each county society to meet and thoroughly instruct their delegates.

"Dr. Paschal: I second the motion.

"President Johnson: Discussion? All in favor say 'aye'; opposed 'no'. Carried."

SPEAKER KOONCE: That might have been a little bit superfluous, but I wanted to know the action that the Executive Council took to call this meeting.

Now to get back to our agenda, there are two items. With the authority of the Chair as Speaker, I am going to rule that those two items be treated separately, that we start with item A, the implementation of the Kerr-Mills Act, and we will carry it to its conclusion before we have any discussion whatsoever on the second item, that is of the Blue Shield program. If that meets with your approval, the plan I think that Dr. Johnson has is that he and Dr. Kernodle, the Chairman of the Chronic Illness Committee, who has worked on this Kerr-Mills Bill, will present to you some of the facets that have come up during the past year in working out the present attitude of the Executive Committee, and why this Called Meeting was brought forward, and then we will open it for discussion.

I will ask Dr. Johnson if he will give you the first part of this.

PRESIDENT JOHNSON: Mr. Speaker, I think it is fitting that before we, as a ruling body of this State Medical Society, attempt to come to grips with solving the problem at hand, the implementation of the Kerr-Mills Act, which is the first of the two problems which we have today, I think it is very important that all of us have a very thorough working and conversant knowledge with all of the details and intricacies of this Act that we are talking to.

I have myself over a period of the last six months, changed the position that I have been in from a standpoint of thinking regarding recommendations as to what we do. I have changed my opinion. In each instance, I believe it has been changed on a basis of a more thorough understanding of the problem at hand, and a more thorough understanding of the forces motivating this problem at hand. There are forces on several sides that enter into the picture of the implementation of the Kerr-Mills Act.

I would like right here to stop for one sentence before I forget again to do this. Those of you from the Charlotte area are aware of the fact that our president-elect is not here today. It is with deep regret that I tell you that he, of course, has our concern and fullest sympathy which the Society has appropriately expressed already. His sister

died suddenly yesterday morning, and Dr. Squires is not and will not be with us here today, and I thought it might be well that you know that he isn't going to be here, and that you know why he isn't going to be here.

Actually, what we are doing here today, to go back to the Kerr-Mills Act, in this meeting of the House of Delegates to talk about the implementation of this facet of medical care, is dealing with a symptom. We are not talking to or in the position to take specific action about the disease itself, and the disease which is producing this symptom is national Socialism.

There is a belief in top echelons around our government in Washington, and in many other places, that the right to medical care should be included in the Bill of Rights of the United States, and that it should be included as a service of the Federal Government. There is an over-all philosophy in high places in Washington that things needed by citizens of the United States in common, things that all people need in common, should be supplied in common to them as a service of the Federal Government supported by taxation.

Therefore, the disease that we are fighting here today is actually a philosophy of government that is prevalent in this country, and the thing that we are reacting to here today is one symptom of this disease.

I think that the two things that we are here today to take up—the matter of the prepaid medical insurance we will discuss secondly—are interwoven very closely. I think they should be interwoven into a long-range policy program which we as a State Medical Society, and of which the American Medical Association as a parent organization, should get together and foster. I have a very definite feeling that had we had, as an American Medical Association and as a State Medical Society, equally some long-range thinking years ago to the point of preventive measures, we might not be in session here today. I have a feeling that we have been fighting just what we are doing today, fighting symptoms, swatting at gnats, while the tiger had his foot under the tent. And I think that both of these problems that we must face here today, in their proper

perspective, should be included in a long-range program, and that what we are going to do today may or may not be a stop-gap, a step taken to decelerate this movement toward a socialized state, which includes socialized medicine, a movement to slow down the now rapid movement to the left, to the point that we may decelerate it and stop it, and begin a movement back from which we have been retreating for the last twenty-seven years, I have been in the Society and I believe we have been fighting rear guard action, or retreating actions for that period of time. Now, that is enough of basic philosophy.

Dr. Kernodle is Chairman of the Chronic Illness Committee, which was charged with studying and recommending to the Executive Council the policy that it felt this Society should follow. It may well be that the Speaker may see fit to ask Dr. Kernodle to present to you the recommendations which were made by this Committee to the Executive Council, and to give you some of the basic reasons and explanations back of these recommendations. Thank you, Mr. Speaker.

SPEAKER KOONCE: Thank you, Dr. Johnson. I might say that there might be some question in some of your minds as to why this Called Meeting of the House of Delegates was called.

The Executive Council in their meeting, their routine winter meetings two weeks ago today in Pinehurst, discussed this and brought up a resolution to the House of Delegates. However, it did not feel that the Executive Council, although it had the authority, had the moral right to put the final ruling on this. And in fact, there were several delegations that requested a Called Meeting of the House of Delegates, and those recommendations were received very kindly by the Council and we felt this should be an open discussion of as large a body as possible representing the membership of the State Medical Society.

I will ask Mr. Barnes if he will read that resolution to the House of Delegates which was passed at the last meeting of the Executive Council.

MR. BARNES: This is an excerpt from the minutes of the Executive Council on the

twelfth day of February, 1961: "It is moved that we rescind the action of the Executive Council which was taken at the November twenty-eighth (Pinehurst) meeting, as it had to deal with vendor payments. It is also moved in the same action that we *not ask for vendor payments at this time.*"

The motion was duly seconded; and upon the question being put, a hand vote was taken, and the motion (in the Executive Council) carried 13 to 4 votes.

SPEAKER KOONCE: Now I should like to call on Dr. John Kernodle, Chairman of the Chronic Illness Committee, who has spent most of the time working on this plan, to give you some explanation of where we stand.

DR. JOHN KERNODLE: Mr. Speaker, President Johnson, Friends: I listened to the philosophy that Amos set down a moment ago and realized that we as doctors are at the crossroads of our program, and I think it is fairly important to reiterate the fact that there has been a question throughout the state that we consider this thing at greater depth with more individuals, and that is the feeling with which I have come to this meeting today.

I should like to have a show of hands as to how many of you have been to meetings in the last few weeks in regard to the implementation of the Kerr-Mills Act.

[A preponderance of the members raised their hands.]

DR. KERNODLE: The Kerr-Mills Act is a program that was instituted in its original concept in all probability by the American Medical Association in conjunction with our friends, the members of the Chamber of Commerce, the insurance associations throughout the country, and others. It was a bill that was recommended by the House Ways and Means Committee (of Congress) back last Summer to combat the Forand type of legislation which had been presented by Mr. Forand from Rhode Island.

It is an Act that is primarily directed to those in need past the age of sixty-five, and we speak of those in need because there has been a feeling of our Congressmen that there are certain people throughout the United States not receiving adequate medi-

cal care. Therefore, the pressure had been placed upon them to do something for that group.

As you all are aware, for the last twenty years, in and out of Congress, there have been some types of bills, many in each session of Congress, to place medicine under a socialized regime. As you all are aware, too, the Medical Society and you as delegates to the House, have written your Congressmen, I am sure many times, during the last few years.

By education we were fortunate in getting a change in attitude in the House Ways and Means Committee, and getting the bill which is now known as Public Law 86-778 passed. This law is an amendment to the Social Security Act. It is an amendment attached to Title I of the Social Security Act and has in it the opportunities to give twelve specific and other types of health care to needy people past 65. There were two parts of the bill:

The first part of the bill actually is already being implemented to a point in North Carolina. That part merely stated that North Carolina would receive on hospitalization, instead of sixty-five per cent of every dollar spent under Old Age Assistance, a total of eighty per cent, an increase of 15 per cent participation by the Federal Government.

As I say, that was effective as of October one, 1960. The Welfare Department which carried only an OAA program immediately took advantage of the increase.

The second part of the program which we are here primarily to talk to today is a new part of the law which requires new legislation in our state, if it is to be fully implemented. Our committee, working directly under the Executive Council, in conjunction with other committees, the Legislative, the Advisory to the Welfare Department, the Mental Health Committee, and others, have worked with many of the different agencies and their chairmen in North Carolina at the state level. We have been in contact with the retiring Governor and his administrative staff, and we feel that there is a good likelihood of implementation of this bill.

The American Medical Association desires

that we implement this bill to give further ammunition for them to utilize in Congress during the next two sessions to combat any type of administration or Forand type legislation. This new bill requires it to have two parts: one, an institutional service; and two, a noninstitutional service.

The Committee in reviewing this program felt that we should go along with several things, and presented those to the Executive Council in November, and the reason we decided on these were because of the needs for these people in our state. The institutional care at that time recommended was for hospitalization. The noninstitutional care that *we recommended* was, as you have probably read in your state journal, *drugs, office and home visits by doctors, office and home visits by dentists, outpatient ancillary services, including X-ray, physiotherapy, and laboratory.*

We also envisioned the dentists and the other ancillary health services working diligently with us to implement the bill. We soon found that this problem was quite large, much larger than we as doctors felt like it was in North Carolina according to our figures. The Medical Care Commission had certain figures. The Welfare Department came up with certain figures, and with the implementation of the bill, they said that about 80 per cent of all people past 65 in North Carolina would be eligible for Medical Assistance to the Aged.

With these figures in mind, we took it immediately to the Executive Council, as recommendations that vendor payments be involved in any program in which the doctors would participate.

After studying the figures, at length and the needs in our state, these figures of 240,000 have dwindled down. Now there are medical assistance patients of about 85,000 as suggested by the Welfare Department.

We in the Medical Society have had the fortunate results of a summary made by Mr. James Barnes, our Executive Director, saying that there are only about 65,000 in the state of North Carolina that need or would fall into the category of Medical Assistance for the Aged. After breaking that down further, there would be approximately 8,000 to

12,000 that would need hospitalization in any one year; and after breaking that down even further, he has outlined his projected thoughts as regards those who would need home and office visits. The figures are much smaller, and that is one of the biggest problems, and the reason that we recommended at a later date that these vendor payments not be asked for at this time.

Now another reason that we changed our philosophy and thinking about vendor payments was the fact that in the November meeting, the Executive Council set up tentative figures for three types of home and office visits: \$3 for office visits; \$5 for a home visit in the day time, and \$7.50 for home visits at night.

They also recommended at that time that the Committee on Fees, the Blue Shield Committee, investigate and come up with realistic fees to be charged to these patients, directly to the Welfare Department, and paid by the State through the Welfare Department to the doctors.

They came up with much larger figures in setting their fees on the basis of the "Medicare Program" some additional fees that have derived, and these fees are markedly different from the original thought that was expressed at the Executive Council in November.

There is a marked difference of opinion among the doctors whom we have talked to with regard to the amount of money that should be requested and paid for these services. If we do what most of the doctors in this state have talked about, and the majority would like to see, a tremendous amount of money would have to be requested to pay doctors alone for their care. But in looking over the real need and the number of people that would be involved, it was realized that there was not as many as the Welfare Department had estimated, and if *we took these patients on a direct, personal physician relationship, charged them as we do now, and have no part of vendor payments, that we as doctors would be much better off in our consideration for implementation of this bill.* That we would cooperate in the implementation, work diligently to get a strong law passed that would make it most

worthwhile for us for any future negotiation, and think at this time it is best not to ask for any vendor payments, those two things, plus the third, and this is an important one: the State of North Carolina is in need of additional monies to carry out the program that has been requested by our governor. They are looking for every means and ways to get these monies to make education the prime point and purpose of this administration.

The assemblymen here in Raleigh are very frank in saying that it is going to be a rough go. They have indicated to us that it would be a poor political public relationship program if we as doctors came to them and asked for large sums of money at this time.

So the Committee has recommended, after due consideration and thorough evaluation of the whole program, talking with many of you from East to West, that it is best at this time—and I underline the three words "at this time"—that we help cooperate and do everything possible to implement a bill that will be powerful and be helpful for us for future reference to this medical problem; that we not request the General Assembly to allot any funds to pay doctors for services rendered to these people past sixty-five, to keep in mind that the whole program is such as to involve the medical profession, and the other health purveyors.

Therefore, we have worked with our lawyer and the Legislative Committee, and disciplines including the County Commissioners, the dentists, the pharmacists, the hospital administrators, and other agencies, to come up with a bill that would be worthwhile and workable.

With those remarks I will close saying again that it is necessary for you as a group to realize when we are talking about vendor payments that we are talking about payments that will be made directly to the doctors from some agency of the Government, or some contractual fiscal agent that the Welfare Department would hire to pay us.

I failed to mention that there was an absolute necessity that the administration of this bill would have to be under the Welfare Department. They are now administer-

ing Title I of the Social Security Amendment, Old Age Assistance. Federal law spelled it out that the agency responsible for Old Age Assistance will likewise be the agency that would carry out the Medical Assistance to the Aged.

Therefore, we have to deal with the Welfare Department. They can, in turn, if they see fit, contract for services to any group, to the druggists, to the doctors; it can be contracted to our Blue Shield and Blue Cross companies, or any commercial insurance company in our state. But the most important factor is that if we accept vendor payments, they will come to us like an insurance program for our services. We would have to make out application for payment.

If this program as recommended at this time by the Executive Council to you is passed today, it would leave you, as doctors, free to charge these patients under Medical Assistance any fee that you feel that was in line of charging them as a private practice relationship. Your collections will be directly to the patient and their relatives. It will have nothing to do with a third party. We would not set up any type of relationship in which a third party would be involved. Thank you.

SPEAKER KOONCE: I am going to ask President Johnson if he has a few remarks to make before we open this for general discussion.

PRESIDENT JOHNSON: Mr. Speaker, I am afraid I am going to have just a few more than a few remarks. I want to try to reason with you, to think out loud with you, and I hope I can do it as concisely as Dr. Kernodle has thought out loud to you regarding the action of his Committee.

We are met here today to decide what to do with an Act that has been enacted by the Federal Congress to deal with the provisions of medical care to the aged. There are two ways that we can implement this (Kerr-Mills) bill.

One, we can implement it by supplying for the people of North Carolina that portion of medical care which is aside and apart from professional services, which is however the most expensive part of medical care present-

ly; that is, the hospitalization, the ancillary hospital services, or office service, X-rays, electrocardiogram, laboratory tests, and the higher-priced drugs, antibiotics, chemotherapeutic agents, and the likes.

We can implement it to that extent and stop, and then the medical profession will be cooperating with the implementation of this bill, but will not be participating in the implementation of this bill. Or, we can implement that portion of it that I have just delineated, and then we can ask for vendor payments.

I am going to tell you my own concept of what vendor payments is. Vendor payment is the intervention of a third party, the Federal Government, through one of its agencies—in this instance in North Carolina the Department of Welfare—into the picture of the provision of medical care. *Vendor payment simply means that the vendor, the person who provides the service, receives payment directly from the agency which is administering the service. The patient is by-passed.* He has nothing to do with it and nothing to say about it. So it is purely a third party manipulation with Dr. Ellen Winston, with the Welfare Department, and through them with the Federal Government. This is vendor payment, per se.

Now when we started out with the idea of implementing this bill in any capacity, it concerned me no little bit, and if those of you here have read the editorial inserts that Dr. Wingate Johnson and his Board have been kind enough to put into the Medical Journal that I have written, you will see that I gave considerable thought as to whether we should implement this thing at all, because in actuality if we implement it to the fullest extent, and swallow it hook, line and sinker, we have then bitten off another chunk, as it were, of socialized medicine. We have already bitten off Veterans care. We have already subscribed to and are working with "Medicare." That is medical care for a group of people both of those within the bounds of the United States, provided for by the Federal Government, and it is just pure and simple socialized medicine to that degree; and if we bit this off in another chunk, we are well on our way

toward socialized medicine, toward state medicine by degrees.

Now with whom will we be dealing if we implement this bill in any manner? But what concerns us most here today, if we implement it by requesting payments from the Department of Welfare for the services we perform, we will be dealing with a Board of State Statutes that has as its chairman a graduate Ph.D. in the field of social sciences, Dr. Ellen Winston, Doctor of Philosophy, who is hired and theoretically is dictated to and controlled by a seven-man board which is appointed by the Governor of the State of North Carolina.

Presently, this Board has no person on it that is in any remote way connected with medicine, nurses, dentistry, pharmacy, hospital associations, or anything else. It is totally a lay board, and this would be the board that we would be dealing with. This would be the board that would be given power, and literally I mean power—they were given in the bill, and then given the right to interpret the bill; and if that doesn't constitute power, I am out of my proper prerogative. That is what we would be dealing with.

It is true that we have an advisory medical committee from our State Medical Society that is called in occasionally to confer with Dr. Winston and the Board of Education. But they have no more power over the action of the Board of Education or the policies of the Board of Education, except in a very minor advisory capacity, than I do over the policies that President John Kennedy is setting in the White House today and tomorrow.

Let us analyze the philosophy of the people who administer public welfare in the United States. They have an association, the American Public Welfare Association. They have a chairman of that Association whose name is Lula Dunn, and I have in my pocket a quotation from her as chairman of that Association as to the long-range policy and thinking of the American Public Welfare Association in the United States, and I should like to read it to you. It is very brief. It reads like this:

This is a paragraph from their paper

which they published weekly, or periodically, and it expresses the philosophy of that organization. "The second general session was addressed by Lula Dunn, director of APWA who spoke on 'APWA Today and Tomorrow' and voiced the support of the Association in the support of the present medical program, but stressed that it is only a first step to a really comprehensive program under Social Security." Now there is your philosophy that is bound to be supported by the administrator of our Department of Welfare, who is a card-carrying member of this Association. So I think that we must analyze with whom we are going to be dealing with this, and just what our prospects are for controlling it, containing it and retaining it.

We were told just the other day—several of us were in on a telephone conference with Washington with the legal advisor for the Department of Health, Education and Welfare, and the top doctor, Dr. Thomas McNeilly—the doctor in charge of medical direction there—and we were told that there was no recourse; that if we wanted to ask could we include something in this bill to our legislature in Raleigh that we would like to have in it, that we would have to submit that through proper channels to the Department of Health, Education and Welfare, and proper channels was, and I think I quote reasonably well, through Dr. Ellen Winston and through her to the regional office in Charlottesville, Virginia, and then if we cared to go further, we could take it on to Washington. That is our chance of redress and recourse from the things that we don't like that may come up in the implementation of this bill.

It is a powerful bill. If you analyze it, it looks on the surface like you were getting a bill that you can handle any way you want to in your state. But then when you start trying to handle it and put a committee into a proposed Complementation of the bill that can take care of the expansion or keep it from getting out of balance and changing of the ground rules, they come back and tell you that that committee can only be advisory; they can have no importance at all.

We have to decide whether to implement

the bill from a standpoint first of the services that Dr. Kernodle spoke to you about as hospital and ancillary hospital services, and drugs, and then we have to decide, secondly, whether we want to request Medical vendor payments.

The bill itself does not ask for any charity, and if you will recall, those of you who have read the little articles I have put in the Medical Journal, that one of them was addressed to that; that *these people are being taken by the Federal Government as wards*, and this medical care is being supplied to them as a service of the Federal Government for monies extracted from those of us here who pay income tax just as much as from industry or other people who, by their own initiative and hard work, earn money. So we are proportionately paying for the care of these people. We are proportionately entitled to receive monies for taking care of them.

However, you have got to look in with a long scope and see where we are putting ourselves if we elect to accept this vendor payment. In the first contact that Dr. Winston made with the Medical Society, she said that she would hope that we would do this service free for these people—at that time she was speaking about 190,000, too, but if we didn't elect to do it for free that she would hope that we would request adequate payments for services rendered, not only for MAA, for the medically indigent, but that we would request adequate payments for all people formerly included under this Act, OAA, or the four categories under public assistance.

Now let us analyze that for a minute. On the one hand, do it for free, 190,000 people, and have the Department of Public Welfare in Raleigh and a hundred of its subsidiary departments certify to you anybody over sixty-five years of age that they put their means test on and say that they were indigent, and for you to take care of free.

Dr. Winston wasn't foolish. She knew what she was doing. She was asking us to cut a pattern for ourselves in that instance that we couldn't possibly afford to do or exist or live under; those of us who live in rural communities, general practitioners,

and men doing internal medicine, family practice, who have upward of close to 50 per cent of our practice in this age group. You would exterminate in North Carolina, under that request, a type of practice that has meant much to this state and has taken care of many people, because a man couldn't live by it. I couldn't.

Then she went from one extreme to the other. She said on the other hand "We would like you then to request vendor payments"—that is the word—"adequate vendor payments" for the total thing under Social Security which, if we did, and at a rate which we could live by as doctors, all of us, would run into literally millions of dollars. She knew equally well that we couldn't live by this one, and that we *couldn't get this one*. She was fishing with a long pole, I have reason to believe, and the bait she was fishing for was placing medicine in an embarrassing position, so that we would be in line to receive from Washington Medical Care for the Aged under the facilities of the Social Security Administration.

Now Dr. Kernodle spoke about the matter of taxation, the fix that we are in in the General Assembly in Raleigh now as to the appropriations. We have talked to a lot of people, and there is no reason to doubt but that if we went down and asked for an adequate rate of remuneration for taking care of these people, we would be laughed out of the legislature. There is also almost, in my opinion, a certainty that if we go down and ask for vendor payments for doctors to any degree at all, that we will preclude the possibility of the bill being implemented under these things that Dr. Kernodle suggested, that we will have killed the whole proposition.

Now that wouldn't be too bad if it did, except for the fact that I believe we need this Kerr-Mills Act implemented under the recommendations that we are presenting here to you today as a beachhead from whence medicine can advance to take back some of the ground that it has lost.

It is factual, physically factual, that when any object or body is moving in a direction with a certain amount of speed or

acceleration, that the first thing you have to do is to decelerate that motion. Then you have to bring it to a halt. Then, if you are to alter its course, you have to start acceleration the other way.

I conceive of the Kerr-Mills Act as being an implement which the American Medical Association helped to make available to medicine in North Carolina, and the United States, an implement whereby we can work to decelerate that fast move which is underway in Washington, and North Carolina also, toward socialized medicine.

I can foresee that if we use this properly, if we have our elderly *people who are adjudged by need, not by right but by need, to be indigent*, and we make available to them hospital care, which is probably one of the highest (cost) services connected with medicine, drugs, X-rays, laboratory facilities, that we will have taken care of most of their indigency and that we will leave medicine, doctors, in the position of not having given away their basic rights to do two things: one, to evaluate their individual patients, whom we know each of us better than anybody else knows, evaluate the indigency ourselves, rather than permitting an agency of the Federal Government with absolutely no medical representation on it at all to do the evaluation of indigency, or else (have government) to set certain standards and means tests that would blanketly include thousands of people with the right to medical care. So we retain, if we do not participate in this (vendor payment), we do not in any way delegate to the Welfare Department or any of its offices or branches the right to evaluate and certify to us a person indigent. We do that evaluating ourselves, *and if a person is totally indigent, we will do as we have done over the years; we will supply the medical care free.* If they are partially indigent, we will take partial payment, like we have done, most of us over the years; and if they are able to pay, we will expect to be paid the going fee.

Second, we will have saved for those people in North Carolina who still have a sense of pride—and there are some of them—their right to participate on a free enterprise basis themselves in their choice of medical care.

That is the practicality of this thing, as I see it.

Now I had jotted down a note, two or three, about supposing we do get vendor payments. Is there a possibility of getting realistic fees? If we go to Raleigh and ask the legislature to appropriate the amount of money necessary to pay for adequate vendor fees, we will not get it. If we get anything at all, if we don't throw the whole thing out the window, they will then come back and say "Here is \$100,000 or \$200,000, which you will get matched four to one in Washington, and you will get \$500,000." That will not go very far toward supplying medical care for people in North Carolina.

Either it will have to be reduced to one little thing, people with coronary occlusion or something like that to take care of, or they will say that each person has a right to one, two or three office calls in the run of the year, \$3 apiece, and after that you may, as doctors, then charge whatever is the going rate.

But now are any of you naive enough to believe that once that patient has been to the Welfare Department and has been certified as indigent for one, two or three trips to your office, or for a week in the hospital, or for a certain amount of drugs, that you will ever be able to put him off the welfare and get him to agree to the fact that he is supposed to pay you again after welfare has paid you for two or three trips? That won't happen. We would have them on our hands forevermore certified to us that way.

We would further be "biting off" socialism. As I said, we have bitten off the veterans, and we have bitten off "Medicare", and we would still be biting off another bite. We would have lost the control of taking care of these people. The program could be expanded by the power built into the people who administer it. They could fix our fees without us even being called in for advice. They could alter the ground rules at any time because we have been told that we cannot have representation on the (legally provided) committee to them with any degree of authority at all.

If we implement this matter by vendor payments, we need not bother, I believe, to

stay around long enough to discuss the second matter on the agenda, the problem of prepaid medical insurance and the State Medical Society's position on that. It would just be a matter of time, if we implement that, before there would be no prepaid medical insurance, no medical insurance of any kind, because it would be very shortly that we would have all people taken care of (by government). I say shortly, five or ten years—all people taken care of by the Federal Government. So we (would) need not concern ourselves then with a discussion of the second portion of this agenda.

But suppose we don't have vendor payments. There are again the big expenses being taken care of by drugs, hospital payments for care—I am inclined to believe over 50 or 75 per cent of these people would be taken off, when given a realistic means test, the medically indigent list. It isn't the doctor's bill, per se, that breaks the back of the person who is medically indigent. It is the sum total of all of it, the hospitalization at \$20 or \$30 a day, and all the charges for ancillary services, drugs and things.

The main thing, if we do not relegate ourselves to accepting vendor payments, what I see that we have done is that we have retained the right to personal evaluation of indigency, and we have retained the right to discuss in a free enterprise manner, the matter of fee for service with our patients.

If we go into this thing on a vendor payment service, we have put ourselves much further (under regulation) than we are now when we treat industrial accidents and industrial cases that are regulated by our industrial commission. You know there yourself that we have fees that are set for us, fees that are regulated for us. But we have a little recourse there. We can go back and talk to the Industrial Commission, and we have representation as doctors on the Industrial Commission.

So that is bad enough. There are many of you here who have had much bad experience with that setup, where we have the right to talk to people who understand our cause, and the right to appeal. But we would not have this here (under Kerr-Mills Act), if we were to enter this on vendor payments.

We have the best opportunity if this is handled right from a public relations standpoint, to go to our legislature and ask that the thing be implemented for medical care in the hospital, drugs, and ancillary services, but we as doctors don't ask you for a thing. We already, as all of you know, are in an atmosphere of poor public relations, not only in North Carolina but in the United States. And I can see that if we went to the legislature and asked for a half million dollars to be utilized for matching funds to take care of three, four or five million dollars worth of medical care for doctors in North Carolina, that we would get ourselves in a state of bad public relations. So we have the opportunity of building up our public relations by staying out.

Then that brings us to the long-range policy, and I will sit down. If we do not implement this vendor payment, then we must tie ourselves to some realistic means of providing, on a prepayment basis, medical care for people of North Carolina, which they are demanding as individuals and as groups; and which they are going to receive either through the efforts of the insurance industry or the efforts of the insurance industry with the efforts of the doctor, or from the Federal Government.

If we are to regain or use this as a beachhead and not take vendor payments, then promptly we have to start on the way back by arranging facilities for the adequate medical care of our people in North Carolina on a realistic schedule of prepaid medical insurance.

I hope I haven't talked too long, and I hope I have brought out some thinking to you that will be pertinent. I may have overlooked some of the points that I should have spoken to. If there are any questions, I would love the task to answer them. [Applause]

SPEAKER KOONCE: Thank you, Dr. Johnson.

I don't think there is any question in your mind that this is quite a controversial problem. There is going to be a great deal of discussion pro and con. Most everybody is going to want to say something, so let us try to make it as brief as possible, and just as a

few factors in our procedure, how many voting delegates do we have now?

[It was announced the number was 136.]

SPEAKER KOONCE: I think that is a remarkable turnout for a Called Meeting.

Now to make a few things more plain, remember that only the voting delegates are eligible to vote in case of a motion. If the delegate and his alternate both are here, the alternate does not have a vote. If the delegate is not here and his alternate is here and properly seated, the alternate votes. Now we want to make that as plain as possible.

We are now opening the floor to discussion. Those of you who have any discussion to make, make it brief; please go to the microphone, give your name and the county from which you are a delegate.

I have a special delivery letter to Mr. Barnes which we are reading for information. It has no effect and no action required.

[For the record.]

"The Alleghany-Ashe Counties Medical Society would like to go on record as lending its whole-hearted support of the Medical Society of the State of North Carolina Legislative Committee as it meets on Monday, February 26, to consider its support of the Kerr-Mills Act.

Please accept this letter in lieu of the attending delegate from our Society who is unable to attend this meeting.

Sincerely yours, Cameron E. Miller, M.D., Secretary Alleghany-Ashe Medical Society."

That is just for your information. Now the floor is open for discussion.

DR. EDWARD L. VISER: (President and Alt. Delegate Hertford County) I am a delegate from Hertford County and have been authorized to come here and represent the views of my County Society, and they are that I present arguments on behalf of vendor payments directly to physicians who are operating under this plan under an equitable fee schedule negotiated by an appropriate body of the North Carolina Medical Society with the administrative agency of the Kerr-Mills Act in the State of North Carolina.

I would like to answer a few of the arguments that have been made previously. I would like to bring up this old bugaboo of poor public relations. It seems to me that we doctors are huddled together and cringing in fear before this boogey man of poor public relations. I don't know of any professional group in North Carolina, or anywhere in the country, that has had a more benevolent attitude toward the public in providing medical care for the sick than the doctors. We have donated multiplied thousands of dollars of free care to the medically indigent prior to this time.

I should like to ask you has it hurt our public relations any so far? So far as my own public relations goes, I don't believe I have any public relations, except in the strict confines of swampy Hertford County. I don't think anybody in Spokane, Washington, knows about me, and whatever public relations the monolithic American Medical Association has among the public, that is another matter.

So I don't think that we ought to fear this thing too much in this instance. I believe that all of us who are working are worthy of our hire. There is no medical care plan that can be implemented without us as doctors. Nobody gets in the hospital without doctors. We work with these people, and I think we are entitled to a fair and just payment for our services; and I don't think any of these other arguments against it refute that or deny us our position in this matter as working men worthy of our hire.

Now the legislators face us with the prospect of killing this bill. I believe that the Nurses Association will in effect get full pay for their services under this bill, and they are providing ancillary services. They are providing medical care to these people—I presume. I am quite sure that then despite these other arguments, they are not going to donate their services free of charge. I don't see why the doctors should.

The argument was made earlier that as it turns out, there will just be a few people covered under this thing, and distributed among all the doctors in North Carolina, it wouldn't prove too burdensome to us. But as a practical matter, we know about gov-

ernment programs. The Social Security Act, as it was passed in 1935, was a relatively actuarially sound plan to provide monies to people who have worked and paid into it, and that is being added to. It is snowballing. It is getting bigger and bigger, and we may start out with just a few, but there isn't any limit to this law in its implementation. According to the letter of the law, any person over sixty-five, whether they are able to pay for their services or not, can be covered if the state will decide that they can.

So I don't believe it will be just a few. I would like to take one phrase which has been inserted in one resolution "*at this time.*" No medical payments directed to doctors at this time. That implied that if we find our experience proves burdensome later on, that we can then come back and say "We are providing a certain percentage of our services to these people, and we feel like it is becoming so burdensome that we would like now to have a fee schedule."

You talk about laughter in the halls of the state legislature. I imagine that that would probably bring down the house, sure enough.

This train is in the station, and it has got a full head of steam, and I will agree that it is a socialistic scheme, but it has been approved of by our national AMA. It has passed in Washington. It is going to pass in North Carolina, and this train is going to leave the station with or without us. I believe if we don't plug for a just fee schedule at its inception, that run as hard as we wish to, we will never catch up to it. It is off and gone over the horizon.

We probably won't have much success in obtaining an equitable fee schedule for providing direct payments to doctors for their services; and if we don't, then I believe the North Carolina Medical Society should insist that this medical care plan not be designated as such. It should be designated as hospitalization plan, or something appropriate; but it cannot be called a medical care plan, unless the plan includes payment for all the medical care and services that these people expect to receive.

The argument has been used that it would

probably be better for us to submit a private fee to these people. Well, we know from our experience with the Welfare Department that these people already think we are paid by the Welfare Department, in spite of the fact that we very freehandedly donate our medical services to these people for nothing. In this instance, too, they will have a right to assume that we are being paid by the Federal Government.

One further thing is, we are put in a peculiar position of our tax dollars being used to pay doctors in other states when they have already passed laws providing for vendor payments directly to doctors for their services. I believe that is about all I have to say, sir. [Applause]

SPEAKER KOONCE: I would like to say further that if there are any questions that you would like to ask concerning the feeling of the Executive Committee, if you will address them to the chair I will ask either Dr. Johnson or Dr. Kernodle to answer them; because in my position up here, I am just to run this meeting. I am not even allowed to have an opinion, unless it comes up as a tie.

Are there any further discussions, questions?

DR. GEORGE KOURY: [Alamance-Caswell-Burlington]: I am asking the question whether what we are discussing at the present time has reference to the proposed legislation Article 4 on the eligibility under this proposed draft. This Article 4 I will read now: "No person shall be eligible for assistance under this act who has made an assignment or transfer of any real or personal property or income within two years immediately preceding the date of application for assistance under this act for the purpose of qualifying for medical assistance for the aged or for any form of assistance granted under the provisions of any state or federal law or for the purpose of increasing the amount of medical assistance for the aged or any form of assistance granted under any state or federal law, or for the purpose of precluding recovery of assistance payments made by the state."

SPEAKER KOONCE: Your question is what, sir?

DR. KOURY: Are we discussing this part of the program?

DR. KERNODLE: Dr. Koury, the question that I asked Dr. Johnson earlier was, did he want me to say anything about the bill, implementation of the law, and certainly it is all referable to what is going on today.

I think the bill has several things in it that would be of interest to the group as a whole, but I think we ought to go down through the bill when the time comes. I believe we ought to act at the moment on the action of the Executive Council, and I believe that would be in order at the moment rather than getting into the bill. That is part of the bill that should be considered and would be interesting for discussion. I would be glad to discuss it at this time, but I think it should come later.

SPEAKER KOONCE: I am going to disagree with that a little bit. I think we should take up the resolution. That is all perfectly true. It is so closely tied in with the bill that I think more explanation of the bill should be made. Does that meet with your approval?

DR. KOURY: If more explanation of the bill is going to be made, I will relinquish the floor.

SPEAKER KOONCE: We will let Dr. Kernodle make a little more explanation of the proposed bill now, and then I will call on you.

DR. KERNODLE: The attorney says that the part that you were involved in "No payment shall be made for assistance which is available through the legal obligation of a contractor" et cetera. That refers to workman's compensation and other avenues of payments which are not included in this bill.

In other words, if they are eligible under other pension plans paid by the state or under insurance programs, such as workman's compensation, they would not be able to obtain assistance under this bill.

DR. KOURY: No, this is paragraph four.

DR. KERNODLE: That is a protection clause that the state assembly will probably put into it. The Federal Law says there can be no lien law, or there can be a recovery

type of law, and it is a protection against those that go out and try to transfer real estate to their children and relatives, and then become eligible under the MAA. That is a state feature that has been recommended by some of our friends in the General Assembly.

DR. KOURY: I agree to this, but some people have transferred real estate with this idea in mind before the period of two, years, and some have sold property with this idea in mind.

DR. KERNODLE: We originally had five years; so we changed our bill to conform with legislation already on the books to two years, rather than conflict with a law already written.

DR. KOURY: Can that be changed in any way, or can a real estate board be appointed to investigate any relinquishment of titles to property at ridiculously low fees to relatives with the idea that they will make themselves eligible for free care?

DR. KERNODLE: I would say this, in behalf of the law right now. I didn't want to get into it, but I think I had better on two or three points.

I would like to point this out: This draft that you have today is about the fifth or sixth draft that we worked on. We worked on it in conjunction with five different groups continuously, with doctors of dentistry, hospital administrators, county commissioners, and so forth.

We would like to tell you today that we could give this to you, and ask you to vote on it, if you wanted us to get it passed, and say it will be passed. But I will tell you the Legislative Committee that Drs. Poteat and Beddingfield head up hopes to get it passed, and we hope to put things in it as strong as possible. You ask, can we do this or that? I will say we will try but you have to take a limitation of what you can get passed in Raleigh. You cannot get everything you desire. The part that you mentioned is very important to doctors, but is more important to the County Commissioner and legislators.

The three points of importance on eligibility requirements we spelled out in our

original program were that eligibility should be on the basis of a top level of income, a net worth of an individual, or a combined income of a couple; a level of net worth and when we did this, we set into the bill a right from now to eternity to receive such health care.

Now the feeling by our group is, and the Executive Council has accepted this thinking, that we not put into the law the right for the individual to receive care with a plateau of \$1,000, but put a flexible eligibility clause in that can be regulated according to the County Commissioners on the local level in relationship to the regulations spelled out by the State Board of Welfare, and along with this we had inserted in this bill an advisory council originally spelled out to have power, but as told to you earlier by Dr. Johnson, the representatives in Washington told us we could not put such in our bill, because it would be against the federal statutes. That only one agency, whatever agency was carrying on the OAA program, would be the agency responsible for this program.

Now we have worked out a draft to the point of empowering this committee with certain pharaseology that gives them more than simple advisory committee status. We spelled out that this committee would meet twice a year minimum with the State Board of Welfare; that they would make recommendations, and that these recommendations would be considered by the State Board of Welfare before any activities took place.

Those things we think are strengthening the committee. We realize, first of all, that the powerful committee we had in this is not possible; they won't accept it. We are wasting our time to talk about it. We do feel that with that we can strengthen our program.

DR. KOONCE: Does that meet with your approval, sir, or do you have something you would like to speak to?

DR. KOURY: Mr. Speaker, I would like to make a motion that the recommendation of the Executive Council be accepted pertaining to not requesting vendor physician payments at this time in relation to the implementation of the Kerr-Mills Act.

DR. POTEAT: Mr. Speaker, I second the motion.

SPEAKER KOONCE: Is there anybody that would like to speak to this motion?

DR. MARVIN LYMBERIS [Mecklenburg County]: I am an instructed delegate from Mecklenburg County. I should like to speak in favor of this motion. There is no doubt that there has been much confusion on this bill. Some weeks ago, I attended a meeting of the North Carolina Eye, Ear, Nose and Throat Society on this subject, and we went down the line almost unanimously on record as favoring vendor payments. At that time, we little understood the Kerr-Mills Act. We felt that we had been saddled with a bill that we could do nothing about, and so we should be paid for services rendered.

In the past month, with much study, many committee meetings, and no free Sundays, I have learned a little bit more about this bill. I have had the opportunity to spend some time with our President, Dr. Amos Johnson, and to hear his views, with Dr. Ernest Howard of the AMA, and to learn the AMA views, and I would say that if that same group that met on January 15th were to meet today, we would rescind every action that we took concerning vendor payments.

Now Dr. Johnson's suggestion in the resolution that we do not accept vendor payments at this time in no way says that we shall not be paid for services performed. I do not think there is a doctor here who would vote for a resolution that says we shall work for nothing. To work for nothing is slavery, and I am not in favor of slavery; but neither am I in favor of going on record through the legislature of accepting as payment in full a fee schedule as outlined by someone inimicable to medical interests, namely the Department of Public Welfare.

If the Kerr-Mills Act, or any other bill which Congress and the Legislature deems wise to pass, wishes to pay hospitalization, drugs, a tobacco or whiskey bill, that is their business; but I do not want to accept a payment as outlined by legislation as payment in full for my services.

We doctors have always had the duty and the privilege of taking care of the truly in-

digent, but we have also had the privilege of defining indigency ourselves, of reaching and establishing a fee arrangement with our individual patients.

Under the resolution of our Executive Committee, this status shall be unchanged. We are still free to charge what we deem right and just under this bill, and to try to collect it, just as we are doing now. But as sure as we accept any fee schedule, we are bound by that fee schedule for years to come.

The State Commission for the Blind secured a fee schedule in 1940. The ophthalmologists of this state accepted that fee schedule for those patients who were certified by the State Commissioner. That fee schedule has remained unchanged since 1940, twenty-one years, and it would take an act of Congress to get it changed.

I would like to answer the argument, too, that Social Security in its inception was actuarially sound. It is unsound, and has always been unsound. It is deficit financing; it is taxation; it is not insurance. It is neither social, and it is not security. [Applause]

That argument has been given. We are saddled with Social Security, and we must abide by it; but it is our duty as physicians and citizens to see that this Social Security system is not so broadened as to encompass every facet of our economic and social life.

The argument that we will be paying taxes for this, and therefore we should reap some benefit, is the very weapon that has been used to socialize every nation that has ever come under socialism. The quotation is: "I am having to pay for it; therefore, I will receive mine out of it."

Unless the conservative element, the people who believe in real freedom, will take a stand and say "You may make me pay for it, but you cannot make me eat it," then the socializers will win.

I think the greatest mistake that we could ever make is to accept a vendor payment. Let us keep the fee relationship between doctor and patient, between doctor and individual patient. When I make a charge today, there is no guarantee, no law that I can

collect it. That is between me and my patient. I hope to keep it that way. Thank you, sir. [Applause]

DR. GEORGE G. GILBERT [Buncombe County]: I am a delegate ex officio, being president, and I think I can speak for our group that we would echo the same sentiments which were just voiced by the previous discussor.

But I would like to ask perhaps a legal question. We obviously are willing and want to fight for our right to charge the patients and have them pay us by our own judgment. But the question comes to us, as is the case with the Industrial Commission, where it is against the law for us to charge the patient directly. Is it possible by law that this act, in being implemented in this state, could take away this right of ours, if we don't have vendor payments? Is that possible?

MR. JOHN ANDERSON: I would say it is not possible. It does not affect the right of the physician or the patient.

DR. SIMMONS I. PATRICK [Lenoir County]: I am a delegate, an instructed delegate, Mr. Chairman.

We are against vendor payments, but we feel that we should have spelled out to the legislature and to the Welfare Department that we reserve the right to charge the patient a fee according to our own discretion as to this patient's ability to pay, and not on anybody else's decision, welfare, state, or anything else. I believe we are going to have to spell this out, so that they will know where we stand when we go to them.

SPEAKER KOONCE: Would you answer that, Dr. Kernodle?

DR. KERNODLE: I would like to say that we are going to try to get a law passed, if it is the decision of this body that we do such, that will be the strongest possible advantages to the Medical Society. It has been requested already by the Welfare Department, that we include in this law a portion saying that the patient has the right to choose doctor, physician, drug store, or any purveyor of service that they so desire, and vice versa. The doctor has the right to refuse to take care of the patient if he so de-

sires. And I am sure that would be in itself sufficient to say that you can charge accordingly. But we will attempt, either in law itself, or any recommendations that will be put into the working of this bill, that we do have the right to charge patients, if they are receiving medical assistance for the aged.

SPEAKER KOONCE: Further discussion?

DR. C. G. GARRENTON [Pitt County]: Assuming that we did not accept vendor payments, but that the patient would have X-rays, drugs, and laboratory work and things of that sort paid, suppose a doctor had these facilities in his office and they are usually done in his office; would he be allowed to accept payment for the ancillary services if he did not receive payment for his professional services?

DR. KERNODLE: One portion of the service, Dr. Garrenton, was spelled out as required or recommended by the Medical Society Committee, and it was that they be allowed to receive ancillary services in the doctor's office, and in the out-patient clinics of hospitals—preferably in the doctors office where available—and they would send them only to the clinics if it were not available in his office.

Those charges for facility service we are working on at the moment and the last addendum report that you received this morning, the last page of it will give you some idea of the figures that have been arrived at in regard to payment.

In this it states that these fees are for facilities, and not for doctor's services. Yet, it would be available in the doctor's office, if he had the facilities available, and are to be payments for service of facilities.

DR. L. D. BAKER [Durham-Orange-Past President]: I rise to question further an answer to a question. Inquiry was made with regard to our privileges for charging fees for services rendered. There is a very broad phrase in this bill that I would certainly be leery of in regard to our being so privileged. It has been my privilege to be on the State Board of Health for a long while, and to go over everything written, particularly some things coming out of certain institutions in

this country or state.

In regard to the cost of medical assistance, it doesn't spell out medical assistance in detail. It just says "Claims for the cost of medical assistance shall be submitted by the county superintendent of public welfare to the State Board of Welfare." Now what are the rules and regulations of the State Board today, and what may they be tomorrow? I think that is a dangerous phrase.

Here is the question that I have—"In accordance with the rules and regulations of the State Board of Welfare." Now what are the rules and Regulations of the State Board today, and what may they be tomorrow? I think that is a dangerous phrase.

MR. ANDERSON: The bill as drawn does provide that the scope of the services to be paid for by the State Board of Public Welfare would be defined by the regulations of the State Board of Welfare within the definitions and grants of the Kerr-Mills Act.

There has been a further suggestion that the services to be provided under this bill (draft) be defined in the act itself. That proposal is under consideration, and some attempt will be made to define that. But that suggestion in itself would infer that the states be allowed—that the Board of Public Welfare be allowed to pay for all of the services which are defined and made available under the Kerr-Mills Act, which are twelve in number. But you still would come back to the regulations of the State Board with regard to the type of services to be paid for by the State.

The regulations of the State Board I would not think would limit or in any way attempt to limit the right of a physician, and when I answered the question as to whether or not the right of the individual physician could be so limited, I stated, in my opinion it could not by the present law, or by anything that is implied in the Kerr-Mills Act. If you so limit the right of a physician, the state would have to provide in the bill itself a definite limitation, or any attempt to limit. I do not think that that could be constitutionally accomplished.

But I agree with Dr. Baker that whatever regulations of the State Board would be issued, we should see that no such im-

plication or intimation or rule should be adopted, of course.

SPEAKER KOONCE: I think you can see now why we departed from our schedule, because in accepting or refusing vendor payments, this whole bill is very much implicated, and we needed a little more explanation. Is there any further discussion or questions about this motion?

DR. ARTHUR B. BRADSHER [Durham-Orange]: I should like to ask what the feeling of the other states is. I am wondering what they are doing in industrial places, and places like California, or things like that. Does anybody know?

PRESIDENT JOHNSON: I had better ask Dr. Kernodle to do this, because he has spent much more time studying the intricacies of this bill as it has been implemented and handled in other states than I have.

However, there are states that have feelings like we are expressing here. There are others who have asked for vendor payments. There are only about five or six states that are implemented now. There are many others, a majority, over forty, that are in the process of implementing this; and just as every individual physician is a character unto himself, so we are going to find that every individual state, in response to the stresses and the strains that occur with this act will, as is provided within the framework of the act, have differences from other states. Dr. Kernodle, would you reply?

DR. KERNODLE: Dr. Bradsher, in regard to the number of states involved in the implementation of this bill, I have the latest data in my hand. There are six states, Puerto Rico and the Virgin Islands, already receiving money on implementation of the Kerr-Mills Act. All of these have vendor payments included in their program. We have the fee schedules from two of these states, and I hesitate to even bring them to you, because they are about as low as the aid-to-the-blind payments in 1940 to our Society of Ophthalmologists, and I am sure you would be very unhappy if we accepted anything like those schedules.

There are nineteen other states with legislation in action. I know of three states

that are not at the moment going to ask for vendor payments. Now a whole lot of this refers back to the Old Age Assistance program (OAA) as we are now participating in this program in our state. Forty-three states in the country are participating in the Old Age Assistance (Medical Care) program. Out of that group of states, about twenty-eight or twenty-nine have some form (OAA) vendor payments to doctors. All of them are very low and reduced in their scale. Minnesota probably has the largest OAA program in the country. They have some \$20,000,000 in their program. Their medical fees are very low and reduced.

DR. HARRY L. JOHNSON: [Surry-Yadkin]: I think we have all been reminded enough that socialism is a disease. It is a disease we could not like. We do not choose to go along with the things that are being proposed in it, and along that line this matter of vendor payments, it seems to me we have been taking care of our welfare and of our charity cases, and we can continue to do so. Mr. Kennedy and Mr. Reuther come along and say to us that they are going to take people under Social Security—taking a number of our patients who are capable of paying. I think we would be in a much better position to argue with them when that comes, if it comes, and I should say in Practice when it comes. We would be in a better position to establish vendor payments, because we can tell them they are taking pay patients and making charity patients out of them, so to speak. That is the main item that I wanted to talk to.

A number of years ago, I talked with our Congressmen and other state representatives in the Congress regarding the Murray-Wagner-Dingle Bill. That was another symptom in the disease. The Forand Bill was a follow-up on that. We have been bombarded—our Congress has been bombarded with one bill after another of that type, and I think we should all drag our feet as much as possible.

I am not in favor of taking vendor payments, because you know and I do, too, that the North Carolina legislature is not going to appropriate enough money to pay us a reasonable fee, and I would prefer to keep

it on a perfectly personal basis between me and my patients.

SPEAKER KOONCE: Any further discussion?

DR. PHILIP NAUMOFF [Mecklenburg County]: I am a delegate and also president of the Society. I would like to reiterate what Dr. H. L. Johnson just said. I think one of the greatest issues we have to face is what will happen to us if the Kerr-Mills Act is not implemented in this state. What next?

Of course, we all have the King Plan that has been introduced into the 87th Congress now, and as all of you have read, the bill that President Kennedy is favoring at the present time provides no payment whatsoever to physicians. That is what he is using as a means of saying that he is not trying to socialize medicine.

If we as physicians go ahead and set up a fee schedule accepting vendor payments, I think we are going to fall into a trap that is being set by this administration where he can say, and it could be said "Here you are, physicians, setting up socialization yourselves by setting up a fee schedule to be paid for by the government." I think, sir, we ought to go ahead and accept the recommendation of our Executive Council, and I would like to move the question.

SPEAKER KOONCE: The question has been called for, but I would hate to close it as long as there is reason for discussion, and I think I have that right.

DR. EDGAR BEDDINGFIELD: Point of information, Mr. Speaker. At the time the chair entertained or invited the motion, it was my understanding that the chair was inviting a motion with regard to vendor payments. The motion as expressed had to do with the implementation of the bill. I think these are two separate things.

SPEAKER KOONCE: Only as to vendor payment, the resolution offered by the Executive Committee.

He made a motion that we are in favor of the implementation of the Kerr-Mills Bill as recommended to the House of Delegates by the Executive Council.

DR. KOURY: I so move, that we do not accept vendor payments.

SPEAKER KOONCE: At this time.

[The question was called.]

SPEAKER KOONCE: All those in favor let it be known by standing, and remember only delegates and authorized alternates can vote.

I think the chair has a right to declare (by the preponderance of the vote) that the motion has been carried.

[Six voted in opposition to the motion.]

The next question of discussion is the question of implementation. Dr. Poteat.

DR. HUBERT M. POTEAT: Mr. Speaker, I move that the House of Delegates in behalf of the Medical Society of the State of North Carolina extend our cooperation to the Department of Public Welfare of the State of North Carolina in the implementation of the Kerr-Mills plan insofar as hospital payments and ancillary medical services (including drugs) are concerned. I so move, Mr. Speaker.

SPEAKER KOONCE: Is there a second to the motion?

DR. W. A. SAMS [Madison]: Councilor from the tenth district, I would like to second that motion.

SPEAKER KOONCE: Thank you, Dr. Sams. Any discussion of this motion?

DR. KERNODLE: Mr. Speaker, I should like to ask the maker of the motion to include drugs as a separate service, rather than just ancillary medical services.

[The question was called.]

SPEAKER KOONCE: The question has been called for. If there is no further discussion, let it be known whether you are in favor by raising your right hand. Those opposed likewise.

[The motion was carried unanimously.]

SPEAKER KOONCE: Gentlemen, is there any further discussion connected with the implementation of the Kerr-Mills Act in any way, shape or form? Are there any questions to be asked concerning the proposed state bill?

DR. SIMMON I. PATRICK [Lenoir County]: Section three, paragraph d. This is under eligibility. The last six words in that paragraph "or the other necessities of life." Who is going to define these for us?

The reason I asked this is because on occasion the Welfare Department decides that a person who has a car and a television, and who has a number of other things, is still considered medically indigent, and they have to pay for the repair of the automobile, and they have to pay for the repair of their television set, and they are still medically indigent. This is sort of a catch-all, and I wonder if it shouldn't be defined a little more clearly.

SPEAKER KOONCE: Well, now, I think Dr. Kernodle answered that question when he stated that this bill was a bill that they hoped to get through in part, but they would have to qualify and possibly change it, and if they could make it more strict, they would.

DR. LESTER A. CROWELL [Lincoln]: Does the chair, or the chairman of the committee have any information about who will introduce the bill in the legislature, or when it will be introduced?

SPEAKER KOONCE: That will be in charge of Dr. Kernodle again, and I will ask him to answer that.

DR. KERNODLE: Dr. Crowell, my interpretation of that question, as of forty-eight hours ago, is that it would probably be introduced the first of next week.

Yesterday morning, I had an hour conversation by phone with Dr. Winston, at which time she told me that her powers-to-be that support her legislation, and so forth, have asked her to slow down. At the present time they are not ready to introduce her bill, which I have in my left hand. So I think there will be several weeks' lag if we wait for the Welfare Department to introduce this bill.

There was some discussion among the Executive Councilors at breakfast this morning as to whether we should take the initiative if they slowed down too far. Secondly, I would like to answer the question that was asked with regard to section 3, d of the proposed bill. It was a criterion on possession by an applicant of means and was taken directly from one or two other bills, Kentucky in particular, in regard to their legislation in the implementation of the Kerr-Mills Act,

The wording that Dr. Winston has in her bill in regard to the flexibility is not quite that strong, and we are negotiating back and forth, and I assure you that in the long run, we will try our best to get the strongest possible bill.

DR. T. P. BRINN: I would like to speak on item thirteen, which is also on determination of eligibility for medical assistance. I would like to ask our Legislative Committee, have they thought along the lines of securing representation on our local welfare boards, a provision by which a doctor could be mandatory on a board, or in some way to be able to get a closer liason between the medical profession and the Department of Public Welfare?

Certainly I think it has been shown here this morning that there is no idea that we will be able to control the thinking of Dr. Winston and her state group. But it is at the local level, I believe, that we would be able to do more for medicine, since the Welfare Department is going to be practicing medicine, either by reason of this group provided by the Kerr-Mills Act, or by some other bill that gets through; that it would be important that we as physicians try to see if we could get more local representation on our many welfare boards. And if that is not feasible or practicable at the present time, then I think it behooves each county Medical Society to enter into direct politics with the County Commissioners and to exert every possible pressure and means by which they can secure the appointment of one physician to that County Board of Public Welfare, that physician to be recommended by the County Society in which the action takes place.

SPEAKER KOONCE: Dr. Brinn, those remarks are not pertinent to the present question, but they are close enough that I am certainly going to allow them; and in order to save time, I am going to ask that Dr. Poteat, the chairman of our Legislative Committee, have a very few words to say.

DR. POTEAT: Dr. Beddingfield is now Chairman of the State Legislative Committee; however, I can answer the question. This matter has not yet been turned over to the Legislative Committee. It is still in

the hands of the Chronic Illness Committee, and we have worked very closely with them. We certainly would propose it exert the influence that Dr. Brinn has suggested in furthering and implementing this type measure.

SPEAKER KOONCE: Now, are there any other questions or remarks that are to be made pertinent to the Kerr-Mills Act before we go to the second part of our agenda?

DR. KERNODLE: I rise for the last time, I hope, in regard to this today to say this: First, that we are now discussing in our committee the addition of medical personnel on the State Board of Welfare, and we certainly can take that up and present it to the Chairman of the Legislative Committee.

Second, regardless of what avenue the Medical Society and our committee take in presenting this bill to the legislature, it is a necessity now that the Medical Society has accepted the responsibility to aid in implementing this bill, that we go back home and begin talking to our representatives at once. As soon as we have authority passed back from the HEW as to our bill (draft) and its acceptance, we will pass it on to you immediately through the legislative channels to help get it implemented, because it is going to take some local work by you, and every one of your friends, to get it passed. Thank you.

DR. T. S. RAIFORD: I just want one point of clarification. Is the bill that Dr. Kernodle referred to as Dr. Winston's bill the same as the one which our committee has proposed?

DR. KERNODLE: No.

DR. RAIFORD: Are they to be coalesced and made one? Is the bill to be made up of a combination of the two? And who is to have the final say-so of the bill? Does Dr. Winston's bill include the factors that we have been discussing?

SPEAKER KOONCE: Are you asking for an answer to those questions?

MR. ANDERSON: The principle differences in Dr. Winston's bill and the bill that you have in your hand are, first, the definition of eligibility. Her bill, instead of d. under Section three says—it refers to one who

is unable to pay for medical assistance. The bill you have has the words "has no means, funds or resources available to provide himself," and so forth, and the word "available" could refer to those resources of the family or relatives. The differences there may be ironed out, of course. There is no essential difference.

The other difference in our bill is the provision for a Council for Medical Assistance for the Aged, which is an advisory council, and I am informed that Dr. Winston will not oppose providing for such a council, if it is approved by HEW, and we are informed unofficially that that provision as now drawn will meet the approval of the counsel or legal authority of HEW in Washington, inasmuch as it is advisory.

The other differences are technical, and in the bill that you have there are some provisions for recovery of funds upon the death of the last surviving spouse, and some technical provisions to prevent abuse of the state's funds by people who are seeking or those who attempt to dispose of their assets. Those are technical changes. If the state does not think those changes are worthwhile, of course they will be eliminated. But in other respects, the two bills are the same.

Now what bill will ultimately be introduced will depend upon cooperation with Dr. Winston, and the introducer of the bill. It is hoped that a bill meeting the approval of her department, and of the Medical Society, may be worked out in advance and introduced.

The essential thing is that the legislators, your friends back home, understand our viewpoint, irrespective of the final wording of the law as it will be passed. If you will go back home and see your legislator immediately, as Dr. Kernodle has suggested, if you haven't already seen him—if you will see him in the next week, or whenever you can, and get our viewpoint over to him, then we in Raleigh, as your representatives, will be in a much better position to talk to them when we see them.

Now the question of who will introduce the bill will come up. The Legislative Committee will have to deal with that; and if

you have any ideas, or if you ascertain that any member of the General Assembly, in the Senate or the House, is very much interested in this program and in our viewpoint, and get any indication that they would be willing really to promote our ideas—if you would let headquarters and the president know those members of the General Assembly immediately, it would be a tremendous help.

DR. RAIFORD: Mr. Speaker, I would therefore recommend that the proper officials of each county society make it a point to meet with their local representatives in the General Assembly and go over in detail this bill which we have proposed, and thoroughly acquaint them with it, so that they will be better able then to understand the bill when it is brought to the assembly.

SPEAKER KOONCE: The chair accepts that as a recommendation to the House of Delegates. Is there any further discussion?

DR. BAKER: I rise to the question if we would be wise to get this bill introduced before Dr. Winston introduces her bill. Of course if your bill goes up first, it is subject to attack and amendment. We can attack hers, but we are always put in a bad light if we try to prevent something.

SPEAKER KOONCE: I am sure the Legislative Committee would consider that. I am also, as a member of the Executive Committee of the State Medical Society—I want to assure you that this was not an unnecessary Called Meeting. The support you have given the Executive Committee of the State Medical Society certainly gives all of us a feeling that we can go ahead with your full cooperation at the present time and accomplish everything we can in favor of the medical profession in North Carolina.

Now with your permission, I am going to item B on the agenda. I will read it as written. In order to refresh your memory, I am going to ask Mr. Barnes to read from the House of Delegates those few clauses pertinent to this matter.

MR. BARNES: I am reading from the minutes taken from the reporter's transcript of her record of the meeting of the House of Delegates in Raleigh in May of 1960, in which Dr. Amos Johnson had been recogniz-

ed by the chair for a statement, and this is Dr. Johnson speaking:

"It seems perhaps that after the very lucid and enlighten nigtalk with Dr. Donald H. Stubbs gave and after the reading of the motion as it was approved unanimously by the Executive Council yesterday, it should be fairly well clear what was meant by this motion. This will be a committee appointed from the Executive Council and from the now present Blue Shield Committee of this Society and also with representation on the committee from the medical members of the Board of Directors of the two nonprofit Blue Cross plans now in existence to study the Blue Shield situation in North Carolina.

As you all are aware, one of our nonprofit companies has been in the Blue Shield business now for some twelve or fifteen years. We have had another one which this House of Delegates or its counterpart a couple of years ago authorized to go into the Blue Shield business if and when the board structure and specifications of the other company which was then selling this type of Blue Shield insurance would allow of it.

The Durham group, Hospital Care, met these specifications, and your Executive Council activated their action and recommended to the National Blue Shield Association that they be given the same privileges as Hospital Saving had. You have heard Dr. Stubbs give the reasons why this was held in abeyance.

Along the line has come the idea that has been advanced to your Executive Council, that there is yet another possibility, that there is a possibility that a third corporation might well be formed in North Carolina whose purpose and action would be to control all Blue Shield policies to be sold in the state of North Carolina, and that this would be then under the almost entire control of the State Medical Society, and it would be sold by and perhaps administered, if we saw fit, on a contract basis by the now present and existing two nonprofit plans, Hospital Saving and Hospital Care.

There are factors to be said for this. I am not speaking for it. I am explaining the factors. The factors are (1) that under the present situation with our Blue Shield setup it is being handled and administered by a board that contains twelve members. Four of them are from the policy-holders among the public, four of them are from hospital administrators, and four are elected by the Medical Society. If we were to form a third corporation we would have a board which would then be perhaps better representative of medicine, and on this board, the hospital administrations would not be necessary—they would be a third party. We would then have a board made up of members, patients, members of the public, subscribers to this, and of medicine.

There are other factors to be said for it, too, in that we would be in control of our own monies and profits which were derived, if you care to call them profits; we could say that any money that accumulated at the end of the year over and above that which which was paid out from that which was received in as payment for policies would then be used entirely for the purpose of reducing—well, there were three things they could use it for. We could reduce the premium that would be charged for the policy, increase the coverage, or it could reflect itself in an increase in the rate of the fees for the services rendered by the physicians of North Carolina. Perhaps, another one, we could, if we had good experience, as has been had by our Blue Shield company, take these policies which we are now selling to our senior citizens and are advertising as coverage for them, which in reality is a bit of a sham—if you get the policy and read it, it deletes and writes out all pre-existing conditions that these elderly people have, so it is not coverage like we would have if Mr. Forand wrote it

for them. We could then pick that up with any excess funds we have, or we could tie it in with all of our policies, and perhaps offer to these elderly people something comparable to what they would get under federal legislation which would give them coverage, because it is reasonable to believe that if a person is sixty-five years of age or older and he has a pre-existing condition, if he is hospitalized or when he dies, the chances are 50 per cent, maybe better, maybe less, and that is a rather arbitrary figure at this time, that that pre-existing condition will be on his hospital admission or even on his death certificate. So actually they are not presently getting the coverage that we would like to believe that they are getting.

There are other factors which would go along also to make us want to give this matter careful consideration. It would help us in our project which the State Medical Society has o.k.'ed and which is now being pursued to remove from Blue Cross policies as they are now in existence and sold both service benefits which should be in the other policies.

We could perhaps, if it were a third corporation and with the control resting within the doctors of medicine—and yesterday Dr. Stubbs, in talking to the Executive Council made the statement that approximately three-fifths of all of the directors of the Blue Shield companies now in existence in the United States were doctors of medicine, so that would mean a preponderance of those on the board—if we had that and we were administering such a policy ourselves, it would be logical and reasonable to believe that we might have better participation in our Blue Shield coverage for our people by the doctors of this state inasmuch as they would have a better opportunity to control insurance as it was sold.

The whole purpose of coming to you with this was to make you aware of this, to make you know what is going on, and to let you approve of this. If you approve of it, it will be implemented as quickly as possible so that we can for our people of North Carolina as soon as possible offer better Blue Shield coverage.

If there are any other questions or if there are any questions that I have not answered in this rather rambling discussion, I will be very glad to answer them.

Dr. Rachel Davis: May I ask Dr. Johnson a question? Dr. Johnson, I think the plan that you talked about is a marvelous plan to increase the service under the volunteer hospital plan. I think this is a great step forward in preventing socialization of medicine.

But I have been seriously wondering if we could not, in the medical profession of North Carolina, take an additional step and come forward with something like a program which will be acceptable to the medical profession not only of North Carolina, but of the nation, to act as a substitute for such bills as the Forand Bill.

Here is what I am thinking of: Twelve per cent of our nation is under Social Security, and fifteen per cent of that twelve per cent is medically indigent. Then we have the great group who are at the welfare level. Is it not time for us to come forth with a program in which we would suggest an idea where in the case of an individual with an income of less than \$1000 a year, have his voluntary insurance underwritten by the Welfare Department and having himself contribute at least ten dollars of his income toward the cost of that policy which would afford him adequate hospital care, the free choice of physician, and so forth. Would not a program something like that be an answer to the program like the Forand bill, and could we not set that up with a greater partial payment and a greater indemnity for the medically indigent group just above that? I think here is the field in which we must do some active thinking and take some immediate action.

Dr. Johnson: If I have interpreted your suggestion

correctly, you would want this committee, if it is activated, to go farther than I set out at first to the extent of exploring ways and means of taking care of all of our medical problems in the State of North Carolina.

Dr. Davis: Right.

Dr. Johnson: I see no reason why, when this committee is working with those sources of information which we will certainly contact and get to advise us—and by us I mean the committee—we cannot explore all the possibilities and report them back and implement them if they are practicable.

Speaker Koonce: To facilitate this, the Executive Committee wants approval from you of the appointing of this committee which is a study committee on Blue Shield which can take up these other problems. I am not going on with the discussion, but I want a motion before the floor. Do I hear a motion, that the action of the Executive Committee be approved?

Dr. Strosnider: I so move, Mr. Speaker.

[The motion was seconded.]

Speaker Koonce: Is there any further discussion? Are there any questions? The simple problem is to appoint an Ad Hoc Study Committee which will make future reports to the Executive Committee and to the House of Delegates. If there is not any discussion, I will put the matter to a vote.

[The motion was put to a vote and carried.]

SPEAKER KOONCE: Thank you, Mr. Barnes. Now I am going to ask Dr. Johnson if he will discuss it.

PRESIDENT JOHNSON: Mr. Speaker, I apologize again for the rambling discussion relative to this matter in Raleigh last year before the House of Delegates in the session at that time.

We, in talking to the second and last item on our agenda here for today, are fixing to delve into the realm of long-range policy to which I referred when I was talking to the implementation of the Kerr-Mills Act earlier today. There are two factors involved. We have already very thoroughly thrashed out, and apparently to the satisfaction of most of us here, the fact that the implementation of the Kerr-Mills Act as we have approved it, almost unanimously, is a point of departure from which we as a State Medical Society, as doctors in this state can, if we so choose, and are so willing to work and dedicate ourselves, use to recoup some of the ground which we have lost in the matter of the social and economic aspects of medicine in North Carolina.

What we are fixing to discuss and consider entering into here is a plan which, if implemented, would put the Medical Society of the State of North Carolina through a corporation, which would be created into, actually, the business of formulating, writing, writing into the policies the areas of

medical care covered, and the fees therefor up to a certain level of income of the purchasers of these policies. It will put us into the business of setting, with the aid of actuaries which will be available to us, the premium which will be asked for these policies, and will put us as doctors into the position—the State Medical Society and these participating doctors—of underwriting these policies which are sold as formulated by this corporation of the State Medical Society.

I, as one who has given an awful lot of thought to where we are going in medicine and as to what our long-range policy should be if we are to maintain the practice of medicine as a free enterprise system, and of the opinion that we must have—that our people in North Carolina demand—adequate coverage, prepaid medical insurance, which would be (1) comprehensive up to a realistic income level; and (2) indemnity over and above a certain income level, realistically.

In case you have any doubt about what I mean by comprehensive and indemnity, let us clarify that right now. "Comprehensive" in my mind means that all services covered in this policy, and all fees set up for professional services under coverage in these policies within this income limit would be accepted by all participating physicians as total payment for services rendered, and there will be no additional bill rendered or fee charged for services.

Above this income level, we have the indemnity. If a person has an income above this level, or is immensely wealthy, or is anywhere in between the two, this fee as set out in the policy then becomes a payment of so much money toward the payment for the services rendered by you as a physician, and you may charge additionally over and above the fees set out in the policy for your services, and render a bill, and expect to collect from your patient accordingly.

Now we have, as a society, now in operation a plan which we are underwriting—those of us who are participating—called *The Doctors Plan*. This plan is presently being sold by one of our Blue Cross-Blue Shield companies in North Carolina and be-

ing administered by them. There is reason to believe that this has not been pushed. There is very good reason to know that it hasn't been pushed, that just enough of this plan has been sold to make it feasible for this company to retain and contain the plan.

There is more advantage to be gained by this particular Blue Cross-Blue Shield company—it is the only Blue Shield company that operates in North Carolina—by selling their own personal indemnity plans and that is easy to understand because the surplus that accrues to the Doctors Plan does not belong to Hospital Saving. It belongs to The Doctors Plan, and it cannot be manipulated. It must reflect itself as a built-up surplus, and when it gets large enough it must reflect itself as one of three things: A lower premium rate for the sale of the policy, a higher rate for services rendered by you as doctors, or additional broad coverage added to the policy itself.

On the other hand, those policies that are sold by this company on an indemnity basis, which they push I believe much more than they do the Doctors Plan, the surplus that is built up there can be manipulated from one fund to another within the framework of this company without any responsibility to medicine. Money that has accumulated as surplus through indemnity plan medical insurance, prepaid, can be put over into the fund to make up deficit for hospitalization plans, for Blue Cross plans. Indeed that has been done. Monies paid in for medical service—those monies paid by the people who paid the price for the policy, the premium was going to the doctors for services rendered—have been utilized to build up the kitty for payment of hospitalization, Blue Cross plans, and that is not fair to the patient. It isn't fair to us as doctors. It should reflect itself in more coverage, broader coverage.

What I am attempting to say quickly is just this: That if we are to stand off further inroads of socialized medicine and welfare state medicine, we have to make available to our people in North Carolina adequate opportunity within their means to pay for medical insurance which will cover them in the lower income groups in total, and in the higher income groups as so much to-

ward the bill, as an indemnity.

I do not believe that under the existing circumstances, as we have in our state today of two Blue Cross companies and one Blue Shield company, each with their own vested interests, that we will be able to accomplish this. I do believe that we will have to, as doctors, initiate some move, perhaps this corporation, which will (1) insure more participation of the doctors of the State of North Carolina, in the Doctors Plan which is more or less a sham in itself, the way it is being sold. We only have something under 55 per cent participation. I would hope that as a matter of policy here that if we have any motion made—certainly any motion that would implement this corporation further—that we have an understanding of policy of what we are getting into, that this is a long-range policy, and that it should involve the participation of almost every doctor in the state if we go into it; and if we are not going to get better than 51 or 52 per cent participation in the policy that we evolve, then let us kill it here today. Let us not start another thing that is going to die by its own inertia.

I would think that we would look closely into the matter of the policy, the ideology back of it, and see if we as doctors can agree that we want to do this. Then the implementation of it will come along. There have been some stumbling blocks put in the way of this. We have been told "If we cannot do this, we will take our ball and go home" by this group and the other one. But there are ways and means of putting pressures and coercions on, that this is not an impractical thing if the membership of the Medical Society wants to go along with this ideology.

It is true that up to a realistic level of income, there will be fixed fees, and I know that there are many of you here that are opposed to fixed fees, and I am opposed to fixed fees. But presently, we are going to have fixed fees in one manner or another. We had it with "Medicare". We have it with the Veterans Administration. We have it done for us by Workman's Compensation, and by many other avenues. So there is precedent there.

But what I am telling you is if we go into this that you as doctors, and as members of the House of Delegates of this Medical Society, and members of the State Medical Society, that the fixation of fees will be within your prerogative and not within the prerogative of Dr. Ellen Winston, or Health, Education and Welfare in Washington, or the Veterans Administration, or "Medicare", or anything else. If you are dissatisfied with the fees as set up for you within a certain income group you have a method of redress. You have your own Medical Society to which you can complain, and which you can control, if you are in the majority.

I would like to stop right there and ask Dr. Jake Shuford, who is Chairman of this Ad Hoc Committee on Blue Shield Study, which many of you as members of the House of Delegates authorized last year to bring you up to date as to where we are right now.

SPEAKER KOONCE: Before I call on Dr. Shuford, it is my understanding that in 1947, the House of Delegates gave the authority to the Blue Shield Committee to establish a program and to implement any such schedule that they saw fit, subject to or connected with the Doctors Plan, subject to the approval of the Executive Council. That was an act of the House of Delegates in 1947. Now we would like to hear from Dr. Shuford.

DR. SHUFORD: Thank you, Mr. Speaker.

Gentlemen, I think that Dr. Johnson and Mr. Barnes, and the Speaker of the House, have outlined fairly concisely the history or the background of this Ad Hoc Committee on Blue Shield Study which was appointed by President Johnson to study Blue Shield in North Carolina, and the committee as appointed by Dr. Johnson consisted of Drs. Ted Raiford, Ralph Garrison, George Paschal, Tom Murphy, V. K. Hart, Dr. Willard Goley and myself as Chairman.

This Committee met on two occasions. On the second occasion, Mr. Ned Parrish, the assistant to the director of National Blue Shield Plans in Chicago met with us in an advisory capacity. After these two meetings and the study and consideration and

thought that was devoted to it, the committee went on record as recommending unanimously to the Executive Council that a third corporation, or a new corporation be formed, namely, the North Carolina Physicians' Services. As I saw it as chairman, that was the job that committee was given and that was the answer that was given back to the Executive Council. This decision or recommendation from this Ad Hoc Committee to the Executive Council was approved on two occasions.

We pursued this a little further. The idea was engendered that perhaps with the ever-present squabble in North Carolina between two competing Blue Cross plans, one holding also a Blue Shield designation, and the desire of the second to obtain the same kind of recognition, that perhaps there was a mechanism by which, in essence, both plans could become Blue Shield plans authorized to sell the North Carolina Doctors Program.

Actually, Hospital Care was authorized to sell this program by this body, the House of Delegates. However, it was never implemented, I believe, because in selling this Doctors Program it did not necessarily mean that they would fall heir to the Blue Shield designation, which has in itself a certain amount of status and advertising value.

Several efforts were made and have been made to reach some agreement. Hospital Care and Hospital Saving Associations were notified of the action of this committee, and I personally appeared before the Board of Trustees of Hospital Saving. Hospital Care Association has agreed to go along with the proposition of forming a third corporation. Hospital Savings Association opposes same.

Now the way this was to be the mechanism that was to be set up, as it was envisioned, was that this third and new corporation of the North Carolina Physicians' Services would belong to the North Carolina Medical Society. A Board of Trustees would be appointed, the majority primarily consisting of physicians, insurance members, and even lay members, if necessary. Under this new corporation, we would apply to National Blue Shield for Blue Shield recogni-

tion and request the privilege of designating both Hospital Saving Association and Hospital Care Association as our agents to vend to the people of North Carolina the Doctors Service Program, designated as a Blue Shield program to each selling association.

After consultation with National Blue Shield—and I cannot help but recall this man's name, because it fits in so well, their legal counsel, Mr. Hap Hazard—Mr. Hazard said that it was not the policy of National Blue Shield to recognize a nonoperating company or corporation. In effect, that is what we had proposed; that *in order to gain the National Blue Shield approval, we would actually have to be an operating company*. It was also reiterated that they would never allow two competing Blue Shield agencies covering the same geographical area.

So you see then that the thinking, as we had envisioned an easy way out some months ago—it was blocked. In order for us to establish a third corporation, North Carolina Physicians' Services, we will have to become a fully operating insurance company, as far as the law requires.

We will have to have assets. We will have to have reserves. We will have to have a Board of Trustees. We will have to apply to the National Blue Shield for approval on a service program only.

It is my opinion that in order to make any such proposition work—and I reiterated what Dr. Johnson said—a realistic income level of fixed fees will have to be fixed or settled upon. Participation of the physicians in North Carolina, in my mind, should be in a large majority, not in a bare majority.

Then once this corporation is formed, and its policies and the legal aspects taken care of, then we can take our own service programs, and we can allow anyone to sell them for us that we so desire. They will carry our label and the Blue Shield label as reflected through us.

Now if I may speak a little bit as Chairman of the (standing) Blue Shield Committee, it has been worked out through the years with a statement of understanding—I

think as far as the participating physicians are concerned, we have remained at about the same level. We have done everything possible to stimulate participation. As Dr. Johnson said, there are certain people who resent fixed fees. I agree to that statement. I resent them myself. But I also feel a sacrifice is in order sometimes.

But I believe, Dr. Johnson and Mr. Speaker, that carries it up to about the functions of the committee now. I would like, if I may—there may not be two Blue Shield agencies in the same area, so if we form a third corporation, it would automatically revert to us. Hospital Saving Association would no longer be Blue Shield. As long as Hospital Saving Association has Blue Shield, Hospital Care cannot obtain it. They will not recognize any semblance of a paper or dummy corporation. We must actually be in business. Thank you.

SPEAKER KOONCE: I would like to hear some expression of opinion. Shall we continue this for a half hour or so, or shall we stop at one and reconvene at two?

[The members voted to continue.]

Now the floor is open to discussion or questions.

DR. FRANK W. JONES: [Catawba]: I am also chairman of the Insurance Industry Committee of the State Society. The Speaker may rule me out of order in the comments I may have to make, but I am trying to develop something that I think is germane to the question at hand.

In the first place, we are dealing with the very delicate subject—we are dealing with one that as people have said earlier has a lot to do with the long-range plan, the long-range attitude of the Medical Society of the State of North Carolina. Secondly, we are dealing in essence, with a service contract up to the (economic) limitations discussed by Dr. Johnson and Dr. Shuford.

Next I anticipate that a policy, an insurance policy, will soon be put on the market to cover the professional fees that are not covered by the fact that we did not accept vendor payment under the Kerr-Mills Act.

Next with reference to Blue Shield, I would say that Blue Shield is an emblem. It

is an emblem, as I understand it, which is conferred by the National Association of Blue Shield Organizations. It is sort of like belonging to a fraternity. If you want to keep someone out, you can blackball him. It does not necessarily mean if the doctors enroll, as it is said they do to Blue Shield—actually, we have left the control of the emblem of the Blue Shield to the Associations which sell Blue Shield coverage.

Now the next point is this: In Connecticut at present there is a move to organize a group which will vend insurance on an actuarial basis wherein all profits over and above the expenses, and over and above the payments to the claimants, would then go back into the fund, so that no profit will then accrue to the organization itself, which is the plan essentially as was discussed a little earlier. In other words, if there is a surplus accumulated, then the coverage is broader, the premium is reduced, or whatever is done.

Now my reason for speaking generally here is to put before the group that the commercial insurance companies would like to participate in some program of this nature. They would accept the same ground rules as the Medical Society would apply to a non-commercial vendor of insurance.

The Health Insurance Council cannot speak officially for all vendors of commercial insurance, but several of the companies have indicated a personal interest in it, and some have indicated a very general interest.

So it seems to be that the commercial insurers and the medical profession are somewhat in a similar position. They don't want socialized medicine any more than we do for the simple reason that it may be socialized insurance before it is over with. I am also reminded of the statement that Marshal Stalin once said when he was told right along would he care to join up with the allies, and someone asked the question "How many divisions does the Pope have?" And Stalin asked the question.

There are a great many people in the commercial industry. If we can show the public that through a corporation which was Dr. Shuford's first idea that we could offer to the public and to anyone that want-

ed to work with us on it in some similar situation, I believe that from a public acceptance standpoint, we would be a little better off.

SPEAKER KOONCE: Any further discussion?

DR. L. L. KLOSTERMEYER [Buncombe County]: I am an alternate delegate. Some time past I spoke before this House, and I think I was labeled a very ardent foe of a service contract, that Buncombe County was very much against service contracts.

That is really not the case at all. We in Buncombe County are certainly interested in the long plan of serving the public and of meeting a demand for broad coverage under a service contract such as that which Dr. Amos Johnson has outlined.

Let me emphasize that it will require a long-planning job to do this, to accomplish this. I don't think it can be settled here in this body today. First let us look into it and see what it takes to make an effective Blue Shield program.

When it was started in 1939, '40 and '41 in some states, there was a doctor participation of better than 90 per cent, in some areas 95 per cent. Now the doctors sold the program. In those same areas at the present time, over 60 per cent of the entire population are covered by service contracts. In those areas surveys of public opinion as to whether they preferred Blue Shield or government medicine have been preponderantly up to 80 per cent in favor of continuing Blue Shield.

In North Carolina, we haven't any such record as that, and anything that we can do to approach that I think is very worthwhile. We have a little over 50 per cent of the doctors in the plan. Some of them are nominally in the plan.

We have a very small number of subscribers to the doctors service contract, primarily because the doctors haven't pushed it and because it is not broad enough in scope—it doesn't cover enough services; it doesn't cover enough people. There are too many people that are not eligible.

Now that is the essence of putting over a plan, and let us recognize that, recognize

that it is going to take a long time to do it; that if we are going to sell such a plan in North Carolina, we have got to start at the county level. We have got to resell every doctor in this state on such a plan, and, Mr. Chairman, I submit this: That if the Blue Shield Committee or this Ad Hoc Committee to study Blue Shield can go back to the county societies, and if you can get, let us say, 80 per cent, not 90 per cent, of the doctors to participate and say "I will participate and put up my money for part of it to set up the capital funds that this needs," then we are assured of some success.

If we say today that we are simply going to start a third corporation, we just haven't accomplished anything, except muddled some waters. We are going to confuse the people that now have medical service contracts. We will go back to them and say "We want you to change over and take this plan." It is going to take a lot of selling, and every doctor is going to have to be selling it, and absolutely confusing the public and giving the impression that we are after another dollar. We have got to do this from the grass roots, and I submit that it is very worthwhile ideally. I submit that it ought to be continued, pushed at the county level and getting every doctor to subscribe on that basis.

DOCTOR DAVID L. TAYLOE [Beaufort]: I am a delegate. I would like to make a *motion that all proposals regarding the setting up of a third corporation regarding a Blue Shield plan be referred back to the proper committees until the plan can be studied more thoroughly on a local level.*

I hold that the Legislature is meeting at the present time and it is very urgent that we act on the Mills-Kerr Act, but that there is no such urgency concerning the present proposed third corporation.

SPEAKER KOONCE: The motion is on the floor. Is there a second?

[The motion was duly seconded by Doctor Sams and Dr. Kornegay.]

PRESIDENT JOHNSON: I am basically in accord with what has been said by the last three speakers, Dr. Jones, Dr. Klostermeyer, and the gentleman from Beaufort.

I had not held out, nor do I think it would

be advisable for this group today to, by a motion made, or by edict from this group, to precipitate the Medical Society of the State of North Carolina to be in the insurance business by tomorrow. As a matter of fact, your Executive Council has the authority to do that already, and the Council itself in its last three meetings, has refused so to do. So what the motion made here just now does is, in effect, substantiate and give approval to the action thus far of your Executive Council.

I think most pertinent is what Dr. Klostermeyer says, that we have to first find out where we stand in this thing, and how many will participate and give active participation.

The most that I had hoped to come out of this discussion here today was to find out the position of you as delegates who undoubtedly are leaders in your various medical societies, county societies, in this state, what the feeling was on a level of the delegates in attendance here as to participating in a program, however it is set up, be it set up under Blue Shield, which I don't think is entirely necessary, be it set up as a corporation as outlined by Dr. Frank Jones, which in a sense would be nonprofit, the surplus to be reflected back into the fund, or whatever the mechanism is; but to find out if, by now, we have a oneness of purpose as doctors in North Carolina to get together to try to implement something that will be of real value in our endeavor to supply; first, good high quality adequate medical care at a price which our people can pay; and in so doing, to reverse the trend that is now prevalent for state medicine.

I would hope that somewhere along the line we might have a show of hands, and motion might be made which would be in generalities indicating that this Ad Hoc Committee, to study Blue Shield should explore this matter further, and that this show of hands or vote taken here would indicate to this Ad Hoc Committee, and to your officers, and to your Executive Council, in some manner a feeling that might be considered as reflecting itself back to the areas throughout our state, all of our counties. That is all I had hoped for, and if any

of you here thought that I was naive enough to believe that we were going into the insurance business tomorrow, you are mistaken.

DR. BAKER: I would ask Dr. Tayloe, since he has made a motion, if he would accept *an amendment to his motion that that committee also be empowered, or requested to pursue* those suggestions made by Dr. Frank Jones, not only pursue them but be directed to make *direct contact with well-established insurance companies*, preferably to begin with, *writing insurance within the borders of our own state*. These things that Dr. Frank Jones brought out, talking about going to the grass roots, need commercial insurance people and health people working at the grass roots for a living. They will sell our program and help sell other programs. If they contact this group of people that we are trying to sell guaranteed medical care, they will also contact people who are not eligible and sell the other policies. I can visualize newspaper advertisements by this insurance company, and I certainly hope you would accept this amendment.

SPEAKER KOONCE: I think the motion could be construed as embodying that in principle, but I will ask Dr. Tayloe if he will accept that amendment.

DR. TAYLOE: Yes.

SPEAKER KOONCE: Dr. Sams, will you accept it as the seconder?

DR. SAMS: Yes.

SPEAKER KOONCE: Any further discussion of this motion as it is amended? No further questions or discussion? All those in favor raise their hand; opposed? *It is unanimous.*

Gentlemen, so far as our agenda is concerned, it is over. So far as discussion from the floor on any matters is concerned, I am now closing it. However, before we close, I would like to take the privilege of giving two minutes to Dr. Edgar Beddingfield from our Legislative Committee for a few remarks which have no specific action needed, and there will be no discussion of his remarks.

DR. BEDDINGFIELD: Thank you, Mr. Speaker. My remarks will be confined to

the implementation of local contacts with one legislator.

I think this is very important to the type of sell that we try to approach our legislators with in regard to our endorsement of the Mills-Kerr program in North Carolina. We must not—we cannot go to our State Legislators and pour out the plaint that the State Medical Society is attempting to assist in Mills-Kerr as a deterrent to the Forand-type legislation. We will get nowhere with that. A good many of our state legislators are very much in favor of the Kennedy-Forand type of legislation. They would like to hold off on Mills-Kerr, because this involves state and local funds, and wait for Kennedy and Forand type legislation, which does not involve local and state funds per se, until they go to Washington.

I think that our position in this—we must say that here is a program that the doctors are for and favor. This is to help the people who need help in North Carolina. It is a discriminating program. Your money will be well spent, because these people are going to be carefully screened. They are truly medical indigent people, and also remind them that the doctors are not asking for anything for themselves. There are no physicians' fees involved in the whole thing. The doctors are for the poor and old sick people. This has to be our position.

SPEAKER KOONCE: Thank you, Dr. Beddingfield. Our president has one final word he wants to say.

PRESIDENT JOHNSON: I just want to

thank all of you for coming here. I think certainly in my experience with the State Medical Society, this has been one of the finest meetings of the House of Delegates I have ever attended. There has been more interest shown, and more oneness of purpose than I have ever seen before; and as your president, I wanted to thank you for this show of interest and for this cooperation and expression of your opinion.

Now one other matter. I did not get the impression a minute ago that the motion passed indicated the feeling of the people here as to participation in a realistic prepaid medical insurance program in the state of North Carolina. It was a motion directing further exploration. For my own personal edification, I want you to do me a favor, and for Dr. Jake Shuford, who is the Ad Hoc Committee Chairman of the Blue Shield Study and who has spent many, many hours working with this thing. This is not binding. It is purely a show of sentiment. I want everyone here who would be willing to go along with the realistic program of medical insurance prepaid up to a realistic level—and that is sort of a nebulous term—to show me your hands—those who would be willing to do that and try to sell it. All those opposed to the basic principle of prepaid insurance on a total coverage plan, I would like to see your hand.

[About twelve voted in opposition.]

Thank you very much. I appreciate your coming.

[The meeting adjourned at one o'clock.]

GENERAL SESSIONS

MONDAY MORNING SESSION

May 8, 1961

The First General Session of the one hundred seventh Annual Session of The Medical Society of the State of North Carolina held in the Asheville City Auditorium, Assembly Hall, Asheville, North Carolina, convened at nine-twenty A.M., Dr. Amos N. Johnson, President, presiding.

PRESIDENT JOHNSON: The First General Session 107th Annual Session of The Medical Society of the State of North Carolina will now come to order.

The invocation will be given by Monsignor Herbert A. Harkins, who is rector of Sacred Heart Cathedral in Raleigh, North Carolina.

MONSIGNOR HERBERT A. HARKINS: Our Father who art in Heaven, who sayeth to the just of old through Thy prophet Jeremiah, I will close up thy scar and will heal thee of thy wounds, and be with these Thy creatures, O Lord, who have dedicated their manhood and womanhood of their missions on earth to the healing of the scars of sickness and suffering, and the wounds of physical and mental afflictions.

Bless their lives and bear errands of mercy, and impart to each one of them Thy wisdom and multiply their dedication to mankind. And as they gather here in convention together, may their mutual knowledge, imparted from one to the other, be imbued with the higher divine knowledge that only comes from Thee, Creator of Men, and of all the knowledge and science that in them lies.

Make us each one Thy personal messenger and Thy ambassador of mercy, making the blind to see, the maimed to walk, the deaf to hear, and the sick to have new life restored within them.

As these dedicated men and women walk through valleys and shadows of death on all sides, may Thy life encompass them. Thy mercy guide their hands and minds and hearts, and in Thy infinite knowledge give them the power to sooth and to heal.

O Lord our God, give to the world Thy

only Son as the Great Physician; may those who assemble here in the paths of healing do all things well. May this convention become the means for the dissemination of new and broader techniques of healing, with knowledge of one becoming the greater knowledge of all, to the great end that through their ministries frail bodies will be restored to new health, and individual worlds will become healthier worlds for having lived therein and worked in them.

Hear our prayers, then, O Father, and abundantly bless the works of the assembly convened here in Asheville, and grant each one who attends a true sense of humility of service, understanding that he is but Thy humble servant of Thy divine will and power for the Life or Death according to Thy will, and for those he serves. We pray for the well being of humanity, who so well and devotedly serve and for the greater honor and glory of Thee, our Heavenly Father, Creator of All Life, Amen.

PRESIDENT JOHNSON: Our first scientific paper today is being given by a Neurologist. Our Secretary, Dr. Rhodes, who is here with us on the platform, being a urologist, I thought it would be fitting to ask him to introduce the next speaker, Dr. Rhodes!

SECRETARY JOHN S. RHODES: Mr. President, Gentlemen and Ladies: If I told you only that our speaker grew up in Ashland County and attended Davidson College, I perhaps would have said enough.

Our speaker graduated from the Vanderbilt University Medical School and had his graduate work in Wake Forest and at Cornell, and finally at the University of Virginia.

Since 1952, he has been associated with Bowman Gray Medical School, Wake Forest College in Winston-Salem. Since 1960, he has been Professor and head of the Department of Urology. His contributions to medicine, especially in the field of Urology have gained him world reknown, and certainly they belie his youthful appearance.

It is my distinct pleasure to present to

you Dr. William Boyce of Winston-Salem. Dr. Boyce!

[Dr. Boyce read a prepared manuscript.]

PRESIDENT JOHNSON: Thank you, Dr. Boyce. This was certainly one presentation in the field which you have covered that I am sure a great many of us learned a good deal about. Those of you who desire to submit questions utilize the pads in front of you while you have them in mind.

About five or six months ago, longer than that, I was asked to moderate or preside at an all-day program on infections and infectious diseases in Kansas City at the University of Kansas. On the program that day was our second speaker of the morning here, and everyone present that day—and we had quite a crowd of people—the doctors there were most impressed by the presentation which this gentleman made.

Resulting from that, I wrote him not too long afterwards and asked him would he come and talk to us here today, and would he also bring his scientific exhibit along with him for our benefit.

Our next speaker is a graduate of Colgate University. He had his medicine at Temple University in Philadelphia, and had his residency training in orthopedic training at Temple University in Philadelphia.

Presently, he is Assistant Professor of Orthopedic Surgery at the Temple University Medical School, and also has a similar position at the Graduate School of the University of Pennsylvania in Philadelphia.

He is now staff surgeon at the Shriners' Hospital in Philadelphia, and also staff surgeon at the St. Christopher's Hospital in Philadelphia, and is consultant to the Veterans Administration.

I am sure that all of us are going to enjoy the presentation that we will get this morning from Dr. Howard Steel of Philadelphia.

[Dr. Howard Steel then read a prepared manuscript.] [Applause]

[Vice President Charles T. Wilkinson assumed the Chair.]

DR. WILKINSON: I am very much honored and privileged to present our next speaker, a tar heel boy bred and educated with too many honors to mention now, but I do want to mention one that he has just

recently received, the very high honor as a member of the Board of the National Academy of General Practice, which Academy now comprises some 27,000 members, and he is most deserving of that high honor.

I give to you our own President, Dr. Amos N. Johnson.

[Applause]

PRESIDENT JOHNSON: Thank you, Dr. Wilkinson.

Just as a sidelight before I start giving you a very learned discussion of your Medical Society, what is wrong with it and what we need to do to get our house in order, I want to thank Dr. Steel for this presentation which he gave. I am sure all of you see now why, after seeing him the first time in Kansas, and understanding what a wonderful presentation he made, that I asked him if he could come and give the same presentation to us here.

To those of you who are here, I still feel quite humble about the job which you have given me, a job which I have been permitted to do this year, and that is to be a front man for your Medical Society, to have the stewardship of your Medical Society for this year.

I have worked at it. I have devoted something approximating half of my time to this thing. I have traveled several thousand miles. I have been to every county, every city medical society, sub-county society, every district society that invited me, that gave me the opportunity to come, except about two, and that was because of conflict that I couldn't get there.

I have enjoyed this very much. At times it has been a little tiring, but I think, all in all, that I have gotten more out of this year's experience by far than perhaps medicine has gotten out of my participation, however much it was.

It has afforded me the opportunity of seeing medicine all over North Carolina, from the mountains to the coast, from South Carolina to Virginia, and of getting a panoramic overall view of medicine in North Carolina. It is right amusing and interesting at times to sit back and think about the

various areas of our state, and the thinking that goes on in the various areas, the little peculiarities that you see in one section of the state that you don't see in another.

I would make this observation from the year's work; that the people in North Carolina, the citizens in North Carolina, get an excellent grade of medical care. I would say that the medical care afforded to our people in North Carolina is second to that of no state in the Union.

I would say that the thing that occurs to me about medicine in North Carolina is not the quality of the care that our people get—it's good care. There is some lack of quantity of this care, and there is a lack of quantity in particular areas, and there is a reason for it. But one thing that concerns me most, as I look at this panoramic picture that I have in my mind of medicine from this year's work, is that an apathy of those who purvey this medical care in North Carolina exists.

It is distressing to me to see our medical profession as apathetic as it is, as unwilling to learn about its own problem, as unwilling to spend time to solve its problems, or to even acquaint itself with all of them, as our medical profession is in North Carolina, and from getting around quite a bit and talking to others, notably a doctor by the name of Askey whom I see with us now, and whom I shall introduce to you at the close of this talk—in talking to men like that, I find that North Carolina doesn't have a monopoly on this apathy; that this is a disease common to medicine in all of our now fifty states.

However, it concerns me immensely, and if we are to stay a free-enterprise profession in the United States, something must be done about that. There are reasons for it. At least the reason that you can project for most everything in the world—and I have very definite ideas about some of these reasons, and some of them will come up in a moment in something that I have prepared to read to you.

I don't like to read talks, but I was told that I would have to have a talk that could be published in our Medical Journal, that I would have to submit a talk, and this will be

probably the second or third talk I have ever read in my life. I don't read well; I only see out of one eye, and I don't understand what I see out of it sometimes.

I have prepared something that will take about fifteen minutes for me to read to you, and I hope that you can understand it as I go along.

[President Johnson then read a prepared text.] [Applause]

DR. WILKINSON: This masterpiece will be scrutinized by the Committee on the President's speeches. You see now why we have a most dynamic and best beloved general practitioner in North Carolina as our President.

I now return the program to Dr. Amos Johnson.

PRESIDENT JOHNSON: I want to introduce to you a man who we feel honored to have with us, and a man who you will have the opportunity of hearing tomorrow night. We have with us today in our audience Dr. E. Vincent Askey, currently President of the American Medical Association. Dr. Askey, will you stand?

[Applause] [Brief]

DR. WILKINSON: Born in Asheville, North Carolina, October 27, 1907; graduated from Davison College, A. B. Degree in 1928; University of North Carolina (undergraduate) Medicine, 1933; Jefferson Medical College, M.D. Degree, 1936; associated with the Miller Clinic in Charlotte; service 16 years U. S. Navy, a Captain U. S. Naval Reserve, postgraduate work in the Navy Hospital, Portsmouth, Virginia, Annapolis, Maryland; the Lahey Clinic in Boston; North Carolina Orthopedic Hospital in Gastonia; Diplomate of the American Board of Orthopedic Surgery, Fellow of the American College of Surgeons, Fellow of the American Academy of Orthopedic Surgeons, a member of the American Orthopedic Association, a member of the Piedmont Orthopedic Club and Orthopedic Research Society, Fellow, International Society of Orthopedic Surgery and Traumatology.

Contributed to orthopedic and surgical literature, I give you now Dr. Chalmers R. Carr of Charlotte, who will talk to us on Trauma and the Contaminated Wound.

[Dr. Chalmers Carr read a prepared manuscript.] [Applause]

DR. WILKINSON: Thank you, Dr. Carr, for this fine presentation. Before introducing the next speaker, let me remind you to fill out your questions.

The next speaker, whom I am happy to you, was born just south of North Carolina down in Hodgeville, South Carolina. He has an M.D. Degree from Vanderbilt, Minnesota and Western Reserve. His chief interest is staphylococcal infections, rheumatic fever, virus infections of the respiratory tract. He is now Professor of Pediatrics at the University of North Carolina. His subject will be "Viruses and Upper Respiratory Infections." I am happy to present to you Dr. Floyd W. Denny.

[Dr. Floyd Denny read a prepared manuscript.] [Applause]

DR. WILKINSON: Thank you, Dr. Denny, for this fine presentation.

The members of our panel have been introduced, except one, and I am honored to present to you the Moderator of our Panel, who is a good tar heel born in Wilson, North Carolina, 1917, attended the University of North Carolina undergraduate school, went to Bowman Gray Medical School, where he received his M.D. Degree; postgraduate training at Duke University; Professor of Surgery at Duke University School of Medicine.

Our Moderator of this panel, Dr. William W. Shingleton of Duke University.

MODERATOR SHINGLETON: I will not reintroduce the members of our panel, as you know them.

I will first make a few opening remarks concerning some current cancer chemotherapy, and I will ask each of the participants to make an opening statement concerning their field of interest, and then we will go directly to questions submitted by you on the slips of paper.

[Dr. Shingleton presented a slide illustrated lecture on Cancer Chemotherapy and presented Panel Members: Dr. Floyd W. Denny, Dr. William Boyce, Dr. Howard W. Steel and Dr. Chalmers R. Carr, each of whom contributed to the subject on Cancer Chemotherapy.]

MODERATOR SHINGLETON: I would like to thank the audience for their attention and for their participation, and turn the meeting back to Dr. Wilkinson. [Applause] [Proceedings of the Panel will appear in issues of the N. C. Medical Journal.]

DR. WILKINSON: On behalf of the Medical Society, I want to thank each member of the panel for his most enlightening presentation.

[The meeting adjourned at one o'clock.]

SECOND GENERAL SESSION

Tuesday morning, May 9, 1961

The meeting convened at 9:30 a.m., Dr. Amos Johnson, President, opening the meeting.

PRESIDENT JOHNSON: The Second General Session will come to order, and I recognize Dr. Rhodes.

SECRETARY RHODES: Ladies and Gentlemen: May I remind you that the deadline on banquet tickets is this noon.

[Announcements]

PRESIDENT JOHNSON: We have for you this morning what I know is an innovation for the Medical Society of the State of North Carolina program. I don't know that we have ever had one like this before ever, certainly not in my period of acquaintance with the programs. Not only do we think that it is something new, an innovation, but we think we have the best team to present this to you that could possibly be together in North Carolina. [President Johnson referred to Clinico-Pathological Conference with clinical presentation by Dr. Eugene A. Stead and the pathological presentation by Dr. Kenneth M. Brinkhous.]

Dr. Stead, who will make the exactly correct diagnosis and tell you about all of the reasons why that is it, as you know, is from Duke. He is Chairman of the Department of Medicine, Professor of Medicine at Duke. He was born and had all of his education in Atlanta, born in West End, and had his undergraduate work at Emory, his medicine at Emory. He managed to get a while away for that time, he says, when he was growing up, and went up to Peter Bent Brigham, but came back to Emory, and then came to Duke, and has been Professor at Duke ever

since, so this will probably be his last stop.

Dr. Brinkhous, who is going to tell you why Dr. Stead is correct in all the things he says. He was from Iowa, had all of his education at the University of Iowa, both undergraduate and graduate education, and this is his first stop from Iowa; so North Carolina has done very well by having people come directly from their training here, and I am sure that all of us are going to enjoy this presentation. [Presentations were made, respectively, by Dr. Stead and by Dr. Brinkhous.]

PRESIDENT JOHNSON: You see now why I said I thought we would have a most interesting program this morning, and we have perhaps the best team to give us the CPC that could be afforded in this area of the United States.

I am particularly pleased as I have looked at the attendance here this morning. I would like to get a little information that may be helpful to us in planning other programs.

This, you know, is a totally different type program than we have ever had before, and those of us who took the responsibility of running this experiment and altering things would like to know a little bit of the feeling about why you are here. Did you like this type of program this morning, and would you like to have it repeated in other years, and have other CPC's repeated on the program? If so, show your hands.

[The vast majority raised their hands.]

Those who would rather have the old type program without continuity of content of subject matter, would you raise your hands. ([A few])

It looks like it's pretty well unified that we have a pretty good system running.

Our next presentation on the program, Dr. Julian Price, I have known all my life by reputation. I live much closer to Dr. Price than I live to Asheville by about 200 miles, but there is a little matter of a state line in between us. He lives in Florence, South Carolina, and I live in Garland, North Carolina, and state lines seem to be a barrier when things or matters in organized medicine, or things pertinent to other than the scientific aspect of medicine, are brought up.

The first time I ever had the opportunity

of meeting Dr. Price was when I got up to introduce him at a Health Council meeting in Raleigh last winter. Dr. Price has devoted much of his time to work in organized medicine, but he is not a man with a single facet. He is to the pediatric area of his part of South Carolina, what those of us from Eastern North Carolina used to think about, and still do, of Dr. J. Buren Sidbury being to our part of North Carolina in pediatrics.

He is an outstanding man in pediatrics, an outstanding physician. But he has devoted a lot of his time to organized medicine, and has gone well and far in organized medicine.

Dr. Price had medicine at Hopkins. He has been back in South Carolina where he has had a wonderful pediatric practice for a number of years.

He has been in the American Medical Association activities for many years, and is currently Chairman of the Board of Trustees of the American Medical Association. Dr. Julian Price will talk to us now. [Applause]

DR. JULIAN P. PRICE: An introduction like that should be treated as you would treat a bottle of perfume. Sniff it gently, but don't try to swallow it.

Several years ago, I made arrangements for Ken Babcock, who is the Executive Secretary of the Joint Commission on Accreditation of Hospitals, to come to South Carolina to speak on the question of accreditation of hospitals. There was a lot of squawking from South Carolina from some of the hospitals, because they didn't think they were getting their just desserts, and so forth.

We had him at just such a meeting as this, and the surprising thing to me was to notice how many men got up and walked out just before he started talking, and I knew they were the very ones that would go back and squawk like the devil when they got home because they weren't getting their just desserts.

I happened to notice a bunch of men getting up this morning and walking out. They are the very ones that will accuse the American Medical Association more than anybody else in the days to come. I don't know why it is, but the minute you announce that

somebody connected with the AMA is going to speak, a lot of folks walk out.

Recently, I was sent an article by this writer from *Medical Economics*, and the tenor of the article was a strong minority of the doctors in this country do not feel that the AMA represents them. They wondered what my criticism was. I wrote back and made a detailed criticism of the article and I said "Why not change the tenor of it? Put down a 'strong majority of the doctors in this country feel that the AMA does represent them.'"

She did. Two weeks from now, when the article comes out in *Medical Economics*, I hope you read it. There is all the difference in the world.

I get a little fed up going around talking to people with these folks that will criticize when they don't know what they are criticizing. The one organization that right now stands between the private practice of medicine and being taken over entirely by the Federal Government is the AMA. There is no other organization that is going to help you. There is an Academy of Practice, and other groups, but primarily the AMA is carrying the ball.

But the men on the sidelines stand up on the sidelines and say "Those boys out in Chicago don't know what the practice of medicine is, and why are they telling us what to do?"

I would like to give you a picture of the AMA as it exists, what it is trying to do, and how it is attempting to represent you who are, after all, the American Medical Association.

The AMA is a federation of state associations, such as this. And your state, in turn, is a federation of your county societies. So after all is said and done, the base on which the AMA is founded is the county medical society. On the national level, we have a House of Delegates, just as you do on the state level, and each state is entitled to one delegate per thousand members in that particular state. Since you now have over three thousand paying members of the AMA in your state, you are now entitled to four delegates, and I was delighted when you selected as your fourth one, Dr. Amos Johnson.

Incidentally, I don't know whether you know it or not, but he has recently been appointed as a member on the Joint Commission of Accreditation in Hospitals. That boy is really getting up in the world.

The House of Delegates of the AMA establishes policy. So many people feel that the Board of Trustees does it. It does not. The House of Delegates of the AMA establishes the policy of the AMA, and if you don't like it and don't think you are being represented, throw the four delegates out that you now have and put in four that will represent you.

The House of Delegates, in turn, meeting twice a year, and establishing policy, appoints—elects, I should say—nine trustees, and these trustees, together with the President and the President-elect, constitute the Board of Trustees. Now these are then not the nine old men, as I heard them described when I first got into AMA circles. The average age is just around sixty. These men come from all parts of the country. We have a general practitioner; we have general surgeons; we have pathologists; we have obstetrical-gynecologists; we have an internist. We even have a pediatrician up there.

They know what the practice of medicine is, and they are the ones who try to carry out the purposes which have been established by the House of Delegates. The House of Delegates meets twice a year. The Board of Trustees meets anywhere from six to ten times a year, and I might say that they serve without pay.

Under the Board of Trustees, we have the Executive Vice President, Dr. F. J. Blasingame, better known as Bing Blasingame. He was a general surgeon in Texas until we brought him up two years ago to succeed Dr. George Lull.

Now under him, we have over 500 employees in the headquarters office, 535 North Dearborn Street in Chicago. These 500 employees are divided up into various divisions, and they report directly to Dr. Blasingame.

Also under the Board of Trustees and the House of Delegates, we have a large number of councils and committees. These are not

made up of employees. They are made up of individuals, even as you and I, and there are over 500 individuals involved in this area of activity. Some of the men are from your state and are on one of these committees or councils. These will meet two or three times a year, and they have some specific activity which is given to them to take care. I will give you the names of some of these in a minute.

Remember that these 500 men again work without any pay. Their traveling expenses are paid. They come in for meetings. By the time you get 500 men coming into Chicago once or twice, and maybe three times a year, and perhaps holding meeting elsewhere, you can see that there is quite a bit of expense connected with this entire thing, and I think you would be interested to know that the annual budget of the AMA runs around \$18 million a year.

It was rather amusing recently when we had to transfer funds of 1-3/4 million dollars from one fund to another in order to establish a pension fund which the Board of Trustees had recently established, and here a little boy from South Carolina, who counts his dollars in ones and fives signed the statement authorizing the transfer from one spot to another of 1-3/4 million dollars.

What does it cost to belong to the AMA? Twenty-five dollars. Compare that with some of your union dues, some of your dues for social organizations that you belong to, and you will find that in many ways, it is a mere pittance. And what do you get for that twenty-five dollars? You get the *Journal* of the AMA; you get a specialty journal, you get *Today's Health* for your reception room! you get the *AMA News*, and you get the entire resources of the AMA backing what you are trying to do.

What are some of these fields of activities in which the AMA is involved? Let me mention just a few of the councils: Medical Education and Hospitals; Medical Service; the Judicial Council, which is more or less the Supreme Court of the AMA; the Legislative Council—I will discuss that in a minute—Mental Health; Medical Physics; the Council on Drugs, which has done more to establish good drugs and weed out poor drugs

than any agency in this country.

The Council on National Security; the Council on Occupational Health; Rural Health; Scientific Assembly.

These are permanent committees, and we call them councils. Men who are elected to them serve for a term of five years, although more recently we are putting it on a yearly basis. We try not to let a man serve on this over one year. Incidentally, just to show you that we do believe in a democratic system in the AMA, no man can serve on a council over ten years. No man can serve over two terms on the Board of Trustees, two terms of five years each. And the average term of service over the last fifty years on the Board of Trustees has been approximately six years. You see there is a rapid turnover.

We have also committees which work; and again some of your North Carolina men are on these committees. They are not quite as well established, quite as broad in their work in committee as the councils, and yet they do valuable work. The medical aspects of sports: some of you have seen what some of the reports are that have come out of this committee.

The medical rating of physical impairment: Those of you who are in orthopedic surgery particularly probably have been using these books that have been put out showing you how to rate physical impairment.

On cosmetics; medical aspects of automobile injuries; liaison with national organization.

The AMA carries on a tremendous publication program. The *JAMA* is the largest journal in the world, comes out twice every month. In addition to that, there are ten specialty journals, the *AMA News* and *Today's Health*. The AMA sponsors two large scientific assemblies, the annual meeting, which incidentally this year will be held in New York, and which I hope many of you will be able to attend, and the clinical meeting in December of each year. The clinical meeting this year will be held in Denver.

It's come to the place now where the AMA can only meet in four cities in this country because of rooming facilities; New

York, Atlantic City, Chicago, and San Francisco. It is estimated that 15,000 physicians will descend on New York this year for the annual meeting.

The AMA is vitally concerned with medical education. In conjunction with the American Association of Medical Colleges, the Council on Medical Education of the AMA surveys medical schools and sees that they are being kept up to date. It also will survey any new medical school and see whether it can be an accredited school. The AMA also supervises the intern program, and as you well know, when these boys start out for their internship, the first thing they want to know is, is this an accredited internship?

One of the biggest problems that we have had facing us in recent years has been the question of the graduates of foreign medical schools. You know and I know that we have got to have more doctors in this country. I was a member of the committee that put out the Baylor report, consulting to the Surgeon General.

We didn't know on what basis to say how many doctors we do need. Would you? Finally, we just said we think we ought to maintain the present proportion of doctor to population. To do this, we are going to have to increase from something under 8,000 graduates a year to around 11,000 graduates a year. And even if we reach the 11,000 graduates a year, we still have to count on a number of these foreign graduates, graduates of foreign medical schools, I should say, to maintain the balance that we now have.

So these are some of the real problems in the field of medical education that we are facing.

One council I would like to mention briefly is the Council on Legislative Activities. You have frequently seen in the newspapers that the AMA opposes this bill, supports this bill. Somebody goes to Washington to testify before one of the Congressional committees—incidentally, somebody is going to have a real headache pretty soon. I'm afraid, because I think the Kennedy bill for Social Security aid—medical aid to the old folks—may be coming up this summer. How is all

this handled?

We have a Council on Legislative Activities. These nine men will meet several times a year, and they will consider all the bills that come into the Congress which have to do in any way with medicine. These will range anywhere from the bill that is known now as the King-Anderson bill, which deals with the care of the old folks, to some bill that wants to give free weeks to a certain group of individuals. And every year certainly hundreds of these bills come in. They pick out the ones that they think the AMA should be involved in, and the Council on Legislative Activities studies them very carefully, and then comes up with their recommendation to the Board of Trustees that this bill should be supported, that it should be opposed, or that we should do nothing about it.

An attempt is made to do that in line with the policies which have already been established by the House of Delegates. Sometimes no policy has been established, and therefore some decision has to be made. The Council in turn passes their report on to the Board of Trustees. The Board of Trustees then considers the question of whether to support, whether to oppose a bill, comes to a conclusion, and then decides whether there will be active support or passive support. What do we mean by that?

If something is coming up in Washington which is not of too great moment, we will simply send a letter from the Executive Vice President, or the Chairman of the Board, to the Chairman of the committee in Washington which is holding these hearings and say we support or we oppose, or whatever it is.

On the other hand, at times we need to send somebody down there to testify, and one of these testimonies can be quite something in effort. I know when the Salk vaccine first came along, as you will remember, there was a tremendous ballyhoo. People wanted to give everybody the vaccine free of charge. They wanted to turn the country upside down and let the Public Service Commission give it to public employees, and so on. We at the AMA and you at home couldn't sanction it.

They went up to testify in Congress in that atmosphere. You sit up there with seven Senators sitting up here, and each one ready to fire questions at you, and movie cameras, and whatnot going. It's quite an ordeal.

That is part of the work that comes under the Council on Legislative Activities. And then they also have a group of men who are going around the country talking to doctors, telling them what is going on, and bringing them up to date.

Another phase of the activity which the AMA joins in is through cooperation with other groups—we work very closely with the American Hospital Association, with the Pharmaceutical groups, with the Nurses. One effort which I would like to mention briefly, since I have been involved in it, is the Joint Commission on Accreditation of Hospitals.

This was started about nine years ago. At that time, the College of Surgeons was surveying hospitals and saying "This hospital is accredited, and this one is not." It was primarily surgical appraisal. It became too large a job for one organization, so then four or five organizations at that time entered the picture, the AMA, the American Hospital, the College of Physicians, the College of Surgeons, and the Canadian Medical has since pulled out.

I remember before we had that first meeting that the six of us that represented the AMA had a caucus. We decided we didn't know what we were getting into. We were very suspicious of these hospital boys. We thought they were going to try to take the ball and run with it. We outlined A-B-C-D just what we were going to do. I am glad to say that was the last caucus we have ever had.

Since then, twenty on the Joint Commission have worked together and have developed their plans in a way that has been almost unanimous. We have our arguments, but when we finally come through with a decision, we reach what we think is a fair decision.

And there again, we have been working, as I say, with these various groups.

Now what lies ahead? I could spend an-

other hour talking about the AMA and still not cover but a very small part of the picture. One of the biggest fights that the American medical profession could possibly have boils down to a simple question. Should the individual citizen, John Smith, feel that it is incumbent upon himself to make provisions for sickness when it develops in himself and his family; and if he cannot do it, should that obligation then become one for his family, and then for his community, and then for his state, and finally only as a last resort bring the Federal Government in? Or should John Smith, citizen, the minute he gets sick, turn to Uncle Sam and say "Uncle, take care of me?" That's the problem that is facing us today.

Bit by bit, the *Federal Government is coming in and taking over*. You know it and I know it. So far they have been giving money. Now they are stepping in on an entirely new principle. *They want to give service*. They want to come in to the man who is over 65, and who is on Social Security, and say "All right, we'll provide the service."

I was talking to a very prominent physician high in Government circles recently, and I said "Well, if you all are so anxious to help these older folks, why don't you give them enough extra money so that they can buy health insurance, hospital insurance, to take care of themselves?" And the answer was "they wouldn't do it. They don't have sense enough to do it. They would spend it on something else." And it is coming to the place then where Uncle Sam, if we allow some of the social planners to have their way, will come in and say to the man over 65, "You don't have sense enough to take care of yourself; I have got to take care of you." Once they do it with a man over 65, they can do it with a man over 60, 50, 40, 30, and down the line.

They say "this does not mean that we are in any way going to encroach upon what the hospital does, or what the doctor does." That is the argument they have been putting up, something Ribicoff told Vincent Askey and myself having a two-hour conference with him the first of the year. That's the argument he used.

How naive does he think we are? They say "Well certainly we wouldn't have anything to do with what the hospital does." And yet what do they do? They will set up the standards as to what hospital shall take care of these people over 65, and you know what those standards are pretty sure to be. The hospital has to be an accredited hospital under the Joint Commission on Accreditation of Hospitals, and how many of your smaller hospitals are going to be ruled out?

And then they will say "Well now, surgery can be performed," and who is to do the surgery? You general practitioners listen to this: The surgery must be performed—and this is in some of the bills in Congress—by a man who is either a Fellow of the American College of Surgeons, a Board man, who is on these surgical staffs of hospitals which are accredited by the Joint Commission.

And when you figure that half the hospitals in this country where they have less than 50 beds are not accredited by the Joint Commission, you can see how many hospitals and how many surgeons that is going to rule out.

That is just a stepping stone. The next thing they will do is say that all-pediatric cases must be taken care of by pediatricians. Sure they will! And all deliveries must be made by qualified Board OB-GYN men. All of that is coming, if you let this thing come along.

And who is fighting the battle right now? All of us are, led by the AMA. What is the future? The future is going to depend, as I see it, on whether the American Medical Association realizes that it is an organization devoted to two things: Improving the science of medicine, and improving the service which medicine can render. If we ever get away from those two basic principles, we are lost.

The AMA can only carry out its mission when the average physician, such as you and I, remembers that there are two things which we are responsible for, and that is that we practice good scientific medicine, and that we render real service to our patients. Thank you. [Applause]

PRESIDENT JOHNSON: Thank you very much, Dr. Price. I feel a little bit more in a position to evaluate the fine job that you have done than maybe many of the folks here. On a much lesser basis, just pertinent to North Carolina, I have been called on to go and talk to the topic of what the AMA does for us, and why we should stay in the AMA. Actually, and factually, I had one county unit consisting of quite a number of men ask me to come and tell them why they should not, as a group, pull out and withdraw from participation in the AMA.

If I had had Dr. Price there, I would have had no trouble at all. I fumbled with it and did the best I could, and I am delighted to say that I did score enough so that nothing has come of that, and they all decided to pay their AMA dues and stay in.

I was also very much impressed with the last part of Dr. Price's talk, where he was telling us what is going on, where we may go, what may eventuate if we do not get together as MD's, as physicians. If we permit ourselves to be fractionated and only meet as specialists here and groups there, and don't at least once a year get together in Asheville or Raleigh, or wherever, as MD's, and form some coalition to stay with the AMA and get something done, we are going to have happen to us just what Dr. Price said there.

[Recess]

DR. WILKINSON: Your President is over talking to the ladies and asked me to pinch-hit for him this morning.

I am happy to present a very fine program on the subject of "The differential diagnosis of abdominal pain." This panel, under Moderator Alfred Hamilton, of Raleigh, will now take over.

Alfred was born in Chapel Hill and went to school at the University of North Carolina and Harvard. He had surgery at Roosevelt Hospital and the Lahey Clinic. In the Army 5-1/2 years, and we are now happy to have him in Raleigh as a general surgeon since 1945.

Alfred, we would be happy to have you take over, and I will yield the microphone to you.

DR. ALFRED T. HAMILTON: We hope the panel today will be confidential in nature since this is a topic which concerns us all, rather than being something that we only occasionally see.

[Dr. Hamilton then read a prepared paper.] [Applause]

I think next, if I may, we will ask for Dr. Shaffner to talk about the same general topic in reference to children. They obviously present special problems, and if anybody ought to know about the answers to them, he does.

Dr. Shaffner, as you know, is Professor of Pediatric Surgery at Bowman Gray.

[Dr. Louis DeS. Shaffner presented a lecture.]

DR. HAMILTON: Dr. McMillan practices general medicine in Southern Pines. He went to Hopkins, interned at Deisinger, was off on a long tour with Uncle Sam. He was a Fellow in Medicine at the Mayo Clinic, and when he got back home, he went to Southern Pines, where I am sure he is happier than he was at the last place. Dr. McMillan!

[Dr. Robert M. McMillan presented a lecture.]

DR. HAMILTON: We have with us in Raleigh a Georgian, Dr. Robert Jackson, who came via general practice to us after having had his fellowship in radiology at the Mayo Foundation in Rochester.

He graduated from the Georgia School of Medicine and interned at the University Hospital in Ann Arbor. He will bring us an account of such aids as may help us from x-ray.

[Dr. Robert T. Jackson presented a lecture.]

DR. HAMILTON: I should like to thank all the members of the panel for their excellent exposes.

[The meeting adjourned at one o'clock.]

WEDNESDAY MORNING SESSION May 10, 1961

The Third General Session convened at nine-thirty o'clock, Dr. Theodore S. Raiford, First Vice-President, presiding.

CHAIRMAN RAIFORD: I will now declare the Third General Session open, and

as is our custom, this is the time allocated for the Conjoint Session with the North Carolina State Board of Health. I will now turn the meeting over to Dr. Charles R. Bugg, State President of the State Board of Health.

[Dr. Charles R. Bugg assumed the Chair.]

CHAIRMAN BUGG: Thank you very much, Dr. Raiford.

My first painful duty is to announce to you officially the death of Dr. Earl Brian last summer, who was a very valuable member of this Board. And there are two new members of the Board since the last annual meeting whom I will introduce first. The first is Mrs. W. Kerr Scott from Haw River. Mrs. Scott, will you stand please? The second is Dr. Oscar Goodwin of Apex. [Applause] The other members of the Board I will ask to stand are Dr. Gale Edwards of Washington, and I think he is not here. Dr. Lenox Baker; Dr. Roger Morrison; Dr. Jackson, Dr. Ben W. Dawsey. [Applause]

As you know, it is the custom of this Conjoint Session for the State Board of Health to present to the Medical Society its official annual report. This is a rather bulky document, and we never undertake to read it, but the meat of it will be presented by Dr. Norton, and I would like to simply say this: that having practiced for something over thirty years as a private practitioner unassociated with the Board of Health, I had the vaguest sort of idea of what the scope of the work was, and I think that probably is true of most of you. If you will listen to Dr. Norton's brief presentation—I have read it—I think you will get a very clear, brief picture, as devoid as possible of statistics, that will give you a much clearer idea of the scope of the work and the various activities that the State Board of Health covers, and I will now ask Dr. Norton to present his report.

DR. J. W. R. NORTON: President Bugg, Dr. Raiford, Members of the Board, Ladies and Gentlemen: Dr. Bugg is turning over to Dr. Raiford the sixty-three page report which gives in detail the work of the State Board of Health during the year, and we feel that this is very important, because of the fact that we have been supported, we

have been sponsored by the State Medical Society through the years, since 1877, and we feel that it is very important for the Medical Society members to be informed, so that they can give guidance. I would like to remind you that this Board of Health is the only Board in North Carolina, state agency, that has the medical representation, the medical guidance and leadership that we have in the State Board of Health.

Instead of summarizing the sixty-three page report, we felt it would be more interesting for you if we might just touch on some of the highlights and at the end mention a few of the mutual problems we have that we should be considering, that we should be considering, that we should be kept up to date on.

I will just go along and refer to some of the highlights in the different divisions of the State Board of Health.

[Dr. Norton then read a prepared manuscript marked Paper No. IX.]

DR. NORTON: I want to thank you for this, another privilege to communicate with you, and I want to tell you that it has been my greatest privilege to serve in your health work for now almost thirteen years. I thank you. [Applause]

CHAIRMAN BUGG: We in the Board of Health and you in the medical profession are fortunate in having a man in this capacity handling the work of the State Health Department.

I failed to recognize Dr. John Bender among the State Board of Health members. If I did, I now recognize him.

I now turn over to Dr. Raiford the official report of the State Board of Health for 1960 and declare this Conjoint Session adjourned.

[Dr. Raiford resumed the Chair.]

CHAIRMAN RAIFORD: Thank you, Dr. Norton and Dr. Bugg, for a most comprehensive report.

I will now reconvene the Third General Session of the 107th Annual Meeting of the Medical Society of the State of North Carolina.

[Announcements]

I am delighted to see as many present as

are, in spite of our evening of entertainment, frivolity, and what-have-you, last night. I believe the Constitution does not state specifically what a quorum is, of what it is constituted in the General Sessions, but I can assume that a quorum consists of those present, and I am glad our quorum has been present then since the opening, and that our quorum is increasing by leaps and bounds, and I hope later on in the morning that we will have quite a good quorum.

The next item is the presentation of the awards, the Scientific Awards, and for this purpose I would like to recognize Dr. Lester Crowell of Lincolnton, Chairman of the Committee on Scientific Awards.

DR. LESTER A. CROWELL: Gentlemen of the Society: We come to the important and pleasant part of the program, the awarding of the prizes to those physicians whose presentations have been judged the best productive efforts presented at the 1960 Session.

I am presenting this report as Acting Chairman of the Committee on Scientific Awards.

The Moore County Award, which was inaugurated in 1928, and which has been given every year since then, to the author of the best all-around essay presented at the previous Annual Session of the Society.

Second, the Wake County or Cooper Award, which was established in 1951 by the Wake County Medical Society in memory of the late Dr. George Marion Cooper, former State Health Officer, and presented each year to the author of the best scientific essay delivered at the previous session of the State Society in the fields of preventive medicine, public health, and maternal or infant health care.

The third award is the Gaston County Award set up by the Gaston County Medical Society in 1955 and presented each year to the author of the best audiovisual presentation on a scientific educational-medical subject, which is presented at the next previous Annual Session of the State Society.

If it is in order, Mr. Chairman, before presenting the awards, I would like to make,

on behalf of the Committee on Scientific Awards, the following recommendation:

1. That some way be devised by which the winners of the above awards can be determined and the awards presented during the same session in which the presentations are made. The Committee believes this idea could be carried out in the case of Gaston County Award without much difficulty, but would be more difficult, but not impossible, in the case of the other awards.

2. The Committee recommends that until the above recommendation is put into effect, if it is put into effect, or even in case the Society decides not to adopt this recommendation, that headquarters of the Society provide each member of the Awards Committee with individual copies of each essay eligible for the Moore County and Wake County Awards.

3. The Committee suggests that the President of the Society each year appoint a chairman of the Awards Committee instead of the Committee choosing its own Chairman, believing that this arrangement would facilitate the work of the Committee.

4. The Committee recommends since the drawing for prizes has become such an important event, and has become apparently a permanent part of the program of the Annual Sessions, that the awarding of the above-named prizes and any other like awards which the Society may in the future decide to supervise, be placed on the program of each Annual Session immediately before or during a time set aside during the prize-drawing activities.

The Committee feels that such timing for public recognition of productive efforts would result in an improvement in presentations before the Society.

The first award is the Moore County Award, Dr. William J. De Maria. I understand the Doctor is not present, and Dr. Farley will receive the Award for him.

The Committee on Scientific Awards chose from the eligible papers presented during the 1960 Annual Session the one entitled "Management of Childhood Nephrosis" by Dr. William J. De Maria as winner of the Moore County Award. Dr. De Maria not

being present, Dr. Farley, who is Chairman of the Section on Pediatrics of the State Society, would you receive this prize for him?

DR. FARLEY: I will see that he gets it. [Applause]

DR. CROWELL: This was a thoroughgoing excellent scientific presentation.

Dr. Edgerton, it gives me a great deal of pleasure, on behalf of the Committee on Awards, to present you, in recognition of your superior presentation before the 1960 Session, this Wake County Cooper Medal. [Applause]

Is Dr. Paul Sanger here? Dr. Robicsek, his associate, is here to receive the Gaston County Award.

Dr. Francis Robicsek, associated of Dr. Paul Sanger and Fred Healy, in the practice of surgery in Charlotte. I present this to you on behalf of the Committee on Scientific Awards for the excellent presentation before the 1960 Session entitled "Surgical Management of Deformities in the Anterior Chest." [Applause]

Lastly, I would like to publicly recognize and applaud, on behalf of the Committee, a great honor and distinction which has been accorded Dr. Kenneth Pickrell, on behalf of the Committee on Awards, and upon nomination by the North Carolina Commission of the Physically Handicapped, the President of the United States has awarded you this Presidential Citation for the North Carolina Physician of the Year for the Physically Handicapped, for contributing most in North Carolina to the cause of the physically handicapped during the past year. [Applause]

Mr. Chairman, that concludes my report.

CHAIRMAN RAIFORD: Thank you, Dr. Crowell. I can assure you the recommendations of your Committee will be forwarded for the consideration of the Executive Council. As stated before, the recognition of the Fifty Year Club will be postponed until somewhere around noon.

We come now to the first address of the morning. I think it would be rather difficult to tell you everything about our first speaker. I could read the four pages of various positions, offices, honors and so forth. I will

try to pick out a few of the pertinent ones.

General Wergeland was born in Montana, 1904, went through the usual schools and colleges, graduated from the College of Medical Evangelists in 1932, where he still maintains his membership in the California State Medical Society in Los Angeles. In 1935, he went into the Army Schools, First Medical Field Service School at Carlisle, Infantry School at Fort Benning, Commander General Staff School, National War College in Washington.

In 1941, he became the Director of Organization and Training, and later Executive Officer of the Medical Replacement Training Center; then the Director of the Training Division, Office of the Surgeon General.

His career in the Army has been steadily upward, and in October, 1958, he was made Brigadier General. In 1958, he was appointed Assistant to the Executive Director in the Office for Dependents' Medical Care, and later in September of the same year he was made Executive Director. I understand recently, within the past two weeks, he has been made Commanding Officer of the Walter Reed Hospital.

I might mention that a very good friend of mine was in Africa during World War II and became quite critically ill, and he woke up in Walter Reed Hospital some six weeks later. I don't know whether it was Walter Reed Hospital that woke him up, but I do know this: that when a person who is ill with a serious type of thing needs help, Walter Reed is where they go, and I think when you hear our next speaker, you will understand why.

I can only say, in the words of a Texas physician who knows him, in the past few years that General Floyd Wergeland is a just but strict leader. It gives me a great deal of pleasure to present General Floyd Wergeland, who will speak on Medicare of today. [Applause]

BRIGADIER FLOYD L. WERGELAND: Thank you, Dr. Raiford. Distinguished practicing Physicians in North Carolina—Friends—I didn't realize I had so many friends when I came to North Carolina. I thought I only knew a few, but I seem to

go well up in the fifties, and I also heard about this Valley of Humility. I also find that this valley is pretty well loaded with hospitality, and I enjoyed last evening here very much, and I owe an apology to Dr. Paschal, who made some request to me yesterday noon about sitting up there at the table in front of this very room, and I ended up back over here. But I was in good company, and I didn't mean any discourtesy by not sitting up there. I looked at the head table but couldn't find Dr. Paschal. His was down a little lower, and I missed that one, so I apologize for that.

I am delighted to come here and talk to you about the Medicare program, and to bring you a little up to date on it, because I can say this: that as far as North Carolina is concerned, I would not have come down here to make this talk, since now I am the Commanding General of Walter Reed General Hospital, if I had not made a commitment to two very fine gentlemen with whom I have worked here, and that is your good friends Jim Barnes, and Kenneth Beeston who have done a superb job in the handling of the Medicare administration here. I had been asked to come down several times before—the last time I said I would make it this time. When the Surgeon General, who I know would send his greetings to you today, asked me about taking Walter Reed, I said I have two commitments, and one of them is to North Carolina. So no matter what I do, I want to go down there and see those nice people.

So you see I have lived up to the bargain and here I am.

[General Wergeland then read a prepared manuscript.] [Applause]

CHAIRMAN RAIFORD: Thank you, Dr. Wergeland, for a very lucid discussion of the problem of Medicare. It has been rumored that you and Mrs. Wergeland have looked with favor upon this Valley of Humility in later years, and in this respect I can assure you that the taste of hospitality you have received is neither temporary nor superficial.

Last night at the banquet you heard our most capable master of ceremonies refer to the necessity of medicine going to politics

and for the inter-relation of policies. It is fortunate for us and for the medical profession that as time goes on we find the rare member of our profession who has not only a tolerance for politics, but who is extremely well versed in politics, and I think a combination of the two vocations is certainly to the benefit of both.

Today we have a man who is certainly typical of that category. Dale Alford was born in Little Rock, Arkansas, in 1916; graduated from the University of Arkansas School of Medicine; took his post-graduate training and has been on the teaching staff of Emory University College of Medicine; returned to Little Rock in 1948 and has been in private practice since that time. That he is a bona fide and qualified M.D. is shown by the fact that he is a Fellow of the American Academy of Ophthalmologists, American College of Surgeons, International College of Surgeons, American Medical Association, and many others. In 1959 he was elected to the 86th Congress and he was again re-elected to the 87th Congress.

It is a great pleasure to introduce to you what I presume I am correct in calling the Honorable Dr. Dale Alford, who will address you on "The Medical Crisis."

HONORABLE DR. DALE ALFORD: I like the story that is going around Washington with regard to the Cuban crisis—speaking of crises—I am not a Democrat of the variety of many of my political colleagues. I am of the conservative variety, and I think my fellow Democrats will bear with me. One of them said, "Well, Jack will send Papa Joe down and he will buy the Island. If that doesn't work, well, we will send Lyndon down there and he will swipe the whole thing, and if that doesn't work we will send Harry Truman, and he will tell them what to do with the damned thing!"

As long as we can joke a little about some of our problems, we are still dealing with them in the good old American way.

I like the story about my being an eye specialist and going to Washington, about the inductee in World War II who did not want to go in the service and he presented himself for the physical examination before an Army major, and he happened to be an

ophthalmologist, and this young man sat down and this officer said, "Young man, read the bottom line," and thinking to fake out of it he said, "What chart, where is the line, where is the wall?" And the Major said, "Young man, take off your clothes and go into the next room." He said, "I just came to have an eye examination, why do I have to take my clothes off?" The Major said, "Don't argue, just take your clothes off and go in the next room." So he went in with about fifty other young men in their birthday suits. He turned to the young man next to him, and he said, "This is the silliest thing I ever saw, I just came in here to get my eyes examined and they made me take my clothes off." And the fellow said, "What the hell are you worried about? I came here to deliver a telegram."

I did go to Washington with a great deal of misgivings so far as political acumen of some of the great names that I had read about and heard about for years, but after being there a few days I was not worried about it.

[Congressman Alford read his prepared manuscript.] [Applause]

CHAIRMAN RAIFFORD: Thank you very much, Dr. Alford. I can only say that I am extremely proud that we have men as articulate and as dedicated on our side as Dr. Judd, Dr. Annis and Dr. Alford. Thank you again very much.

We are doing extremely well this morning, proceeding right on time.

Our next speaker is Dr. Eugene A. Hargrove. Dr. Hargrove was born in Texas in 1918; graduated from the University of Texas and the University of Texas Medical School. He served his residency in Psychiatry in Omaha, Nebraska, and later was a Fellow in Psychiatry at the University of Pennsylvania, the University of California, and now holds the position of Clinical Associate Professor of Psychiatry at the University of North Carolina. He is the author of many papers, a book, some educational films, and will speak to us this morning on the admission procedures for mental hospitals in the State of North Carolina. Dr. Hargrove!

DR. EUGENE A. HARGROVE: Dr. Rai-

ford and fellow Physicians: I very much appreciate the opportunity this morning of reviewing briefly with you the North Carolina laws relating to the hospitalization of the mentally sick and to discuss with you some of the pending legislation concerning admission procedures in which the physician plays a crucial role.

We believe that any law governing hospital procedures for the mentally sick should provide three functions to the individual. These were spelled out almost a century ago by Dr. Isaac Wray, a psychiatrist known as an alienist in those days.

The first function should be to provide maximum opportunity to the person for prompt medical care; second, to provide protection against emotionally harmful or degraded treatment such as trial by jury or jailing; and third, protection of the individual against wrongful confinement and deprivation of his rights.

A good mental health code should be based on accepted concepts of sound legal and medical procedures since both the community and the individual must be protected. Hence, our code needs constant revision to keep pace with social, legal, and medical changes and advances.

To be specific, and for practical applications, we believe that a mental health code should provide at least four types of admission procedures:

1. Voluntary hospitalization;
2. Hospitalization on medical certification;
3. Hospitalization by emergency procedures;
4. Hospitalization on court order.

At the present time the law of North Carolina allows three types of admissions to psychiatric hospitals. Those are voluntary, emergency, and court order. We do not as yet have medical certification as many other states have. At the present time approximately 34 per cent of admissions to our state psychiatric hospitals are voluntary. Interestingly, this is well over 50 per cent of the national average, a fact in which North Carolina can take considerable pride. However, we would like to see voluntary admissions used even more than at the present

time. In this type of hospitalization, the patient, after first procuring a letter from his personal physician recommending admission, signs himself in and agrees to remain in the hospital under observation and treatment for a thirty-day period, at the end of which time he may leave if he chooses. A second type of admission to our state psychiatric hospitals is by court order. At the present time this is the most frequent type of admission, 50 per cent of our patients being hospitalized in this manner.

Briefly, this procedure has three steps: 1) Some reliable citizen—this is usually a relative of the patient—goes to the Clerk of Superior Court and signs an affidavit stating that he believes that the person is mentally disordered and needs admission to a hospital. The second step occurs when two licensed physicians examine the patient and if they believe he is mentally disturbed and needs observation and treatment in a psychiatric hospital, they sign an affidavit to that effect. The third step takes place when the Clerk of the Superior Court holds an informal hearing after first serving on the patient a notice of this hearing. The Clerk at this hearing examines the patient and the affidavits of the physicians and may then issue an Order of Commitment which hospitalizes the patient for a period not exceeding 60 days.

The third type of admission into North Carolina hospitals is by an emergency procedure and this may be used if the patient is suddenly and violently mentally disturbed. Usually this means he is actively homicidal or suicidal, or in need of immediate hospitalization. In this procedure the patient may be admitted for a twenty-day period of observation either through an affidavit of one physician or through an order of the Clerk of Superior Court. Not both of these procedures, but only one is required in the emergency commitment. If after the twenty-day period the patient is in need of further care in the hospital, the usual court commitment takes place. At the present time approximately 2 per cent of our patients are admitted by the emergency procedure. We are glad this kind of admission is available to the patients, but we would like to see it

used strictly in an emergency situation, and we believe for the most part that it is.

Now with some of the recent advances in treatment of the mentally sick and the shortening of the hospitalization which most patients have today, we feel that there is need for more and more emphasis on admission as a medical procedure. We very much hope that medical certification will be added as a fourth type of admission to the psychiatric hospitals of North Carolina. -- --Legislation is pending which will include medical certification in our present mental health code. This kind of admission allows hospitalization for sixty days whenever two physicians certify that in their opinion the person is mentally ill and in need of care and treatment in a psychiatric hospital.

At this point, I would like to express my appreciation to the North Carolina Medical Society and to individual physicians throughout the State for the very helpful support currently being given this legislation. This kind of admission or medical certification is a procedure which applies mainly to patients who will not or cannot come to the hospital voluntarily, but will come without protest on the urging of family and on the advice of their physicians. This is sometimes called a non-protest admission. South Carolina has successfully used this kind of hospitalization for six or seven years and at the present time, approximately 80 per cent of admissions to their state hospitals are by medical certification. This procedure, like voluntary admission, more nearly allows us to consider the patient as one who is sick and in need of hospitalization and medical treatment, and not as a criminal in need of incarceration. Often we find that with legal commitment there is considerable stigma along with social and family disruption, and many patients after being discharged are thankful that there are no legal procedures, that there have been no court commitments which hang over them. Medical certification for emphasizing the medical approach and de-emphasizing formal court action does, however, hold such court action in readiness where necessary for the protection of the patient, and if the patient or any member of his family objects to ad-

mission through medical certification, this cannot, of course, be used, and regular court commitment must take place.

We believe, all told, that North Carolina has an exceptionally good mental health code, particularly if medical certification is added—we will have a law which is humane and progressive, and which does provide maximum reliance on medical judgment, and which does protect the patient from any degrading experiences, and at the same time protects him against wrongful confinement. We believe that undoubtedly the close relationship existing between patients and their family physicians in North Carolina contribute significantly to the success of any of our admission procedures. Thank you. [Applause]

CHAIRMAN RAIKORD: Thank you, Dr. Hargrove, for a very good description of something that has often been not clearly understood in North Carolina.

I know that many of us have a feeling at times that in these days of medicine under duress we wonder from whence comes the next generation of those who ought to follow us, and we are sometimes concerned about it. I think after hearing the next speaker you will have your faith restored in the continuity of our medical practice in years to come. Mr. William Waddell who is now National President of the Student AMA will be our next speaker. He was born in Mooresville, North Carolina, in 1931, son of Dr. and Mrs. Robert Waddell. His father was a general practitioner and is now a general surgeon and is on the community hospital staff. Bill Waddell attended Wake Forest College and is now enrolled in the Duke University Medical School in the class of '62. Among other numerous honors and activities, including a family of three children, and a wife, of course, he is Secretary of the Student Body at Duke for the present year. I am very glad to welcome William B. Waddell, President of the National Student AMA, this morning.

MR. WILLIAM WADDELL: Thank you, Dr. Raiford. Members of the Medical Society of the State of North Carolina, Ladies and Gentlemen: I am honored to be able to speak to you this morning concerning the affairs

of the Student AMA. I have been most fortunate in being able to guide SAMA through this year which we feel is a very excellent one, and I want you to know this would not have been possible without the very good efforts of the chapters at Bowman Gray, at the University of North Carolina, and indeed, the chapters in the entire southeast. Neither would it have been possible without the excellent cooperation and encouragement from the administration and faculty at Duke University School of Medicine, not to mention you, our State Society. You may not be aware of it but three of the eleven presidents of SAMA have come from North Carolina, one from each of the three schools. These three all have a few things in common which may interest you. One of them is that we were all undergraduates at Wake Forest College. Now, this has got a few people over the country wondering just what in the world these North Carolina Baptists are up to, but I think the most important thing we have in common has been the very excellent support of our State Society, and for this support, past, present and future, I want to thank you very much.

Let me give you a brief resume of the history of SAMA. It all began eleven years ago under the stimulus and with the support of the AMA in Chicago where forty-one schools met and drew up a constitution. This past Sunday we completed our eleventh annual convention with representatives from seventy-five schools and over 20,000 medical students throughout the country. We had growth in numbers to be sure, but I think there has been a growth in other ways that is much more important, and this growth has come in an increasing awareness and understanding of affairs of medicine and its place in society.

We feel that we have now reached a point where we can speak out with authority and conviction on many of these matters. Another source of great pride to us is our journal, *The New Physician*. This journal this past year won first place in the Medical Writers of America Awards for the journals over 5,000 circulation, and this includes JAMA and the *New England Medical Journal*, so you can see we are very proud of that.

Our convention was our largest ever with a total registration of over 2,000 and including 1,400 medical students, and I know you will be as proud as I am that one of the students from North Carolina, Mr. William Thornton, won first place in the scientific exhibits.

Politically, we are continuing to do well, I think, and a Duke student, Mr. James Watson, will guide the Southeastern region through next year.

Our activities are many, and increasing in number. We are represented on the Board of National Internal Medicine program. We have instituted a program of loans and scholarships in 1955, and this Foundation, the SAMA Foundation, has been a stimulus toward the formation of similar programs by the other medical organizations. We have this year voted to throw the resources of our Foundation, though small, in with those of the AMA, and its excellent programs of loans and scholarships.

We have been active in the field of recruitment. I don't know whether you know it or not, but the ratio of applicants to places in medical school has reached a low of less than 1.8. This has been a source of great concern to us, and we have been actively going out to high schools and colleges throughout the country and attempting to explain medicine to students to try to recruit some of these men into medicine.

We have been rather active in the affairs of interns and residents. As all of us will be interns and residents one day, we are, of course, very concerned about these. We think that one of the most vital problems facing interns and residents, and one not easily solved, is the fact that their salaries are at such a low level. We feel that this is a major problem facing medicine today, affecting both the quality of graduate education and the motivation of the undergraduate student toward medicine as a career.

We have been active in recognizing student research each year at our convention. We have programs that present papers for awards, scientific exhibits and medical photography, and we are now attempting to set up a program of regional research seminars which will extend these efforts fur-

ther. We are engaged in good liaison with most of the medical agencies throughout the country.

Internationally, we are presently in what is known as a medical student exchange program with the International Federation of Medical Students Association, and we are very fortunate to have a representative of this organization at our last convention.

We have been interested in the Peace Corps set up by the present Administration, and hope to participate effectively in that.

One of our profound concerns is with the future of medicine, and I think rightly so. We have the whole of our medical practice before us. We feel that we must speak out. This is a right; it is also a responsibility, and we are being heard from. We realize that medicine as we know it is in a real battle for its survival. We realize too that this is not a struggle peculiar to medicine. The very foundations, the wellsprings of our country's existence are being threatened. There are a few lines from Shakespeare that I think are particularly apt here, and I would read them to you:

There is a tide in the affairs of men
Which taken at the flood lead on to
fortune.

Admitted all the voyage of their life
Is bound in shallows and in miseries.
On such a full sea are we now afloat
And we must take the current where
it serves

Or lose our ventures.

We look to you, the physicians of today, for guidance and I want you to know that we the physicians of tomorrow stand firmly by your side. Thank you. [Applause]

CHAIRMAN RAIFORD: I know Dr. Alford will agree with me in feeling that the affairs of medicine in years to come will be safe in the hands of men like Bill Waddell. Thank you very much.

Last summer at one of our local nursing homes three elderly, frail graybeards were rocking in their Kennedy rockers, and they finally got around to discussing the facts and philosophies of life, and one made the boast that he was now 92 years old and that he attributed his longevity to hard work, good food, early to bed and early to rise. The second claimed that he was 95 years of

age, and he attributed his longevity to clean living, attending church every Sunday, and total abstinence from all the minor vices. The third had very little to say, but when someone asked him to what he attributed his longevity he said, "To wine, women and song, and plenty of each." Then someone says, "By the way, how old are you?" And in his frail cracked voice he says, "Thirty-nine."

Now the group of people whom you will have the opportunity of meeting shortly, I can assure you, do not look like octogenarians, but I can assure you from the records that they have spent long and full lives in the practice of medicine. I am very glad to recognize again our retiring President to officiate in this ceremony, and in addition to all the accolades he has received in the past few days, I want to introduce again Dr. Amos Johnson, a very dear personal friend, and a great man of medicine.

DR. JOHNSON: Dr. Raiford and members of the Society, guests and friends, [At this point Dr. Johnson read from the script attached, calling each of the names on the list of "50 Year Club" attached.]

CHAIRMAN RAIFORD: I would like to add my personal congratulations to all you members of the 50-year club and hope that some day if we had a 60-year club you would all be present for that.

The next order of business is the presentation of the AMEF checks for which purpose I will recognize Dr. Ralph Garrison, the Chairman of that Committee.

DR. GARRISON: Dr. Raiford, members of the North Carolina State Medical Society, members of the medical auxiliary and guests: I am indeed very happy to participate in a small way, to act as agent for the American Medical Education Foundation in conveying \$22,521.01 to our three great medical schools. This year, each of 85 medical schools in the United States received \$5,207.32 plus any other money that was sent to the AMEF earmarked for a particular school. North Carolina physicians gave to our three medical schools a total of \$107,819.57 which in total amount contributed by state ranks 14th in the United States, but doctors contributing through the American

Medical Education Foundation percentage-wise, ranks 45th, or six percent of the doctors in North Carolina contributing through AMEF. We have made some improvement, this past year but are still far from giving through AMEF the amount that we received. For the years 1958, 1959 and 1960 we received a total of \$65,000 from AMEF and I'd like to clarify two points very briefly. One is that all money sent through to your medical school through AMEF reaches the school without any deduction. There is no service charge connected with this service. Secondly, any money that is sent to a particular school can be earmarked for that particular school and this, in turn, will not in any way affect the amount of money that is sent each year to the 85 medical schools throughout the United States.

At this time I want to thank the Auxiliary of the Medical Society for the fine work that they have done this past year. They have contributed about \$2,800 just short of \$3,000 toward this program and at this time I'd like to recognize the Dean of the Medical School at the University of North Carolina, or his agent, for his check. The University receives this year \$7,094.82 from AMEF.

DR. WILLIAM P. RICHARDSON: We at the University of North Carolina School of Medicine are deeply appreciative of this contribution, and I wish to assure you that it means a great deal more than just the amount of money involved because it signifies to us the recognition on the part of the Medical Profession of the need of medical education for support beyond the sources that have traditionally been available to us, and your willingness and desire to have a part in this added support.

DR. GARRISON: At this time I'd like to recognize the Dean of the Medical School of Bowman Gray School of Medicine, Wake Forest, Dr. Coy C. Carpenter. I might say that for Bowman Gray School of Medicine we have a check for \$7,134.41.

DR. CARPENTER: I want to thank all the members of the Society and doctors for this fine contribution, being Dean of the smallest and poorest medical school in the state we naturally need it worse. Thank you.

DR. GARRISON: I notice from the size

of the check the Baptists are always as usual in the middle. At this time I'd like to recognize the Dean or his agent from Duke Medical School, Durham, N. C., and for them we have a check of \$8,109.78.

DR. WILLIAM PEETE: I am Dr. William Peete and I am representing Dr. Barnes Woodhall. Since I am one of what he calls a "using" doctor in the medical center it is a particular pleasure for me to represent him in the receipt of this money, and he and I have written a few words we wish to present to you for an expression of appreciation.

I want you to know that no contribution to medical school education is more gratefully received than that which comes from members of the medical profession. We feel that the AMEF represents the most warmhearted and at the same time hardheaded acknowledgment of America's need that we reproduce ourselves albeit never quite in the same mold. This is perhaps the most important positive thing, and it is certainly a substantial indication of our commitment; that is, the medical profession's commitment, to commence in medical education.

So, I stand here to thank you for Duke and Particularly its medical school.

DR. GARRISON: Thank you.

CHAIRMAN RAIFORD: Thank you, Dr. Garrison. The next order of business is elections and that, I can assure you, has all been taken care of. I will now recognize Dr. Johnson to review the report of the House of Delegates as to the election of officers at his pleasure.

DR. AMOS JOHNSON: As this transpired under my term of office, I will report it to you. Your program calls for an installation of officers elected by the 1961 House of Delegates. Actually, I will read to you the report of the Nominating Committee which was approved unanimously by the House of Delegates and that report will in itself constitute the installation.

First, I'd like to let you know who was on the Nominating Committee for the past year: Dr. Zack Owens, Dr. Karl Pace, Dr. Robert M. Fales, Dr. Robert M. McMillan, Dr. Malory A. Pittman, Dr. Paul F. Manus,

Dr. Jesse Caldwell, Dr. Charles Norfleet, Dr. James Raper, and Dr. Jacob Shuford, Dr. Shuford being Chairman of the Committee. The Committee met at the Sir Walter Hotel at 12:00 in March, 1961, and the entire membership of this Committee was present. The following recommendations were submitted and as I have told you, were approved unanimously by our House of Delegates this year. For President-Elect, Dr. John Robert Kernodle. For First Vice President, Dr. John Payne, III. For Second Vice President, Dr. Sam Holbrook. For Speaker of the House, Dr. Donald Koonce. For Vice Speaker of the House, Dr. John Reece. To the North Carolina State Board of Health, four-year terms, two men, Dr. John R. Bender and Dr. Charles R. Bugg. The Constitutional Secretary for a three-year term, the gentleman whose name I could not remember a while ago, Dr. John Rhodes. For Delegate to the AMA and alternates; the first two are two-year terms; the second two are for one-year terms and thereafter they will be staggered. For two years, Dr. Elias Faison, alternate Dr. Hollister; Dr. M. D. Hill, and alternate, Dr. William Nicholson; Dr. A. N. Johnson, and alternate, Dr. G. W. Paschal, Jr.; for one-year terms, Dr. C. F. Strosnider, and alternate Dr. E. W. Schoenheit.

Councilors:

1. T. P. Brinn, Vice Councilor, Cook.
2. Lynn Williams, Vice Councilor, Ernest Larkin.
3. Dewey E. Bridger, Vice Councilor, William A. Green.
4. Edgar Beddingfield, Vice Councilor, T. T. Herring.
5. Ralph Garrison, Vice Councilor, Dr. Hardy Summerlin.
6. George Paschal, Vice Councilor, Rives Taylor.
7. Edward Bivens, Vice Councilor, Charles Stuckey.
8. Harry Johnson, Vice Councilor, John Burwell.
9. Tom L. Murphy, Vice Councilor, Paul Deaton.
10. William A. Sams, Vice Councilor, W. Otis Duck.

The Committee recommended, and this

also was approved unanimously, that the invitation issued to the North Carolina State Medical Society by the City of Greensboro and the Guilford County Medical Society extending their facilities for use as a city for the annual meeting to be accepted, and it is recommended that in the year 1964 that we hold our annual session in the City of Greensboro. I might state that we are working that far ahead, three years ahead, because that amount of time is required if we are to be assured of the full facilities of any town that we go into with our convention. This was the report, and it was adopted by the House of Delegates. Those are the officers elected. Now, it gives me, believe me, a lot of pleasure to present to you the man whom I had the honor of installing last night, and the man who now is President of your Medical Society of the State of North Carolina. Dr. Claude Squires, from Charlotte. Dr. Squires.

PRESIDENT SQUIRES: Ladies and gentlemen, I fully realize that this crowd is here to get me to talk rather than to receive prizes. I'd like to urge that everyone read Representative Alford's address which will be published in our Journal. I think it was the most forceful address I have ever heard in the Medical Society of the State of North Carolina. We want to urge you to read your *AMA Journal* and to read the *State Journal* and please read your mail from Jim Barnes because he always has something for you. I am not going to take but a few minutes' time because I don't see any need in rehashing the stuff that you have heard here since last Saturday.

I appreciate your confidence in selecting me as President of the North Carolina State Medical Society.

In the coming year it will be my desire to keep the individual county medical societies fully informed on the county society level as to what is taking place and what is new both as far as the American Medical Association and as far as your State Medical Society is concerned. We intend to inform every member of the State Medical Society as to what is going on and also intend to keep your county medical society officers informed on everything that has any

bearing on the future of medicine.

In 1900 life expectancy was 48.2 years; in 1930 life expectancy was 59.1 years; in 1940 life expectancy was 63.3 years; in 1955 it was 67.3 years, and I understand at the present time it is 68.5 years. We might ask the forces who are trying to force socialized medicine upon us for their reason for this increase in longevity. Whether it was labor and socialistic forces or the American physician and its allied interest.

It appears as though we are going through "changing times". Our government has changed radically in the past several decades and our international relations have changed radically in the same period of time.

Men are being retired from their occupations at a time when they reach a peak of efficiency. It is true that some men of 60 or 65 do not desire to work or are not able to work but a vast majority do want to work and can do excellent work for many more years. However, they are forced to retire by our big corporations and other business interests.

Once upon a time we had a government of, by, and for the people and at the present time it seems to me we have a government of, by, and for organized labor and other socialistic groups. It appears to me that regardless of who is President of our good country that we have had many problems with these groups and still have many problems to work out for the American doctor. This is going to be a continuous fight between the forces of labor and socialistic inclined people and the American doctor.

Although not agreeing fully with the Kerr-Mills Act and not agreeing fully with our welfare authorities and with the Department of Health, Education and Welfare, I believe the members of Congress will defeat any more procedures which will tend to socialize medicine. However, we cannot sit idly by and expect all this. It is going to be a continuous fight between the socialistic forces and American medicine.

At times we think our dues are rather high but they are comparatively low as compared to dues paid by labor unions.

In the so-called debate between Mr. Ruether and Dr. Annis, I was very proud of Dr. Annis' argument and his conduct.

The first debate between the AMA and the socialistic group was certainly a farce and was certainly rigged. This is a well-known fact and I was happy to see a man of Dr. Annis' ability hold his own with the shrewd labor leader.

I have been amused so often by the statements made by many who prefer socialized medicine when they refer to the pitiable plight of the old man above 65 and the valiant efforts made by socialists to correct this condition.

I cannot see where the MAA or the OAA as outlined in the Kerr-Mills Act will be of any great help to those 65 or above. This is particularly true when you study and read the "means test".

Our welfare board has thus far not given us an understandable "means test". It is said that it is not applicable to a person who has an income of \$1200 or to a couple who have an income of \$2,000.

I have never known any elderly person in my own county, Mecklenburg, who could not get medical help and hospitalization when it was necessary.

The Welfare Department in Mecklenburg County pay the hospital a daily rate of \$20 to \$22 and when such a patient is admitted to this hospital the physician renders his services free of charge. I have never felt this was right but I have always complied with the custom in this regard.

It has been said by those who are in favor of socialized medicine that the medical profession is always against everything and for nothing or that the AMA is always "against something and never for something".

"Making progress" and "being for something" are phrases to which the liberal propaganda has given the power of witch craft that is being used freely by the socialists.

They fail to realize the great work done by the Blue Cross and Blue Shield organizations in this country and especially those in North Carolina. They also refuse to recognize what the reputable commercial com-

panies have done in trying to establish various forms of health and hospital insurance. [Applause]

DR. RAIFORD: Dr. Squires, you are now officially a "Big Wheel" and I have no further business here, and while you are getting your feet on the ground, I will make one other announcement: that Ebbert

Powell, III is the winner of the \$50 bond for the best paper given at the meeting of the SAMA on Monday night. That brings to a close the official business of the Society of this session.

[Awarding of prizes]

[The meeting adjourned sinedie at 1:00 P.M.]

EARLY HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA FROM ORGANIZATION TO 1891

Date	Place	President	Vice Presidents	Corresponding Secretary	Secretary	Recording Secretary	Treasurer	Censors
Dec. 17, 1799, or April 16, 1800	Raleigh	Richard Fenner	Nathanicl Loomis John Claiborne	Calvin Jones		Wm. B. Hill	Cargill Massenburg	Sterling Wheaton James Webb Jas. John Pasteur Jason Hand
Dec. 1, 1800	Raleigh	Richard Fenner			Sterling Wheaton			
Dec. 1, 1801	Raleigh	John C. Osborne	Thomas Mitchell Richard Fenner	Calvin Jones	Sterling Wheaton		Cargill Massenburg	James Webb John Sibley
1802	Raleigh	John C. Osborne		Calvin Jones				
1803	Raleigh	John C. Osborne		Calvin Jones				
1804	Raleigh	John C. Osborne		Calvin Jones				

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA FROM 1849 TO 1959

*Missing Data Not to be Found in Record

Date	Place of Meeting	Number in Attendance	President	Vice Presidents*	Secretary	Treasurer*	Members on Roll*	Honorary Members*	Honorary Fellows*
1849	Raleigh	25	F. J. Hill		W. H. McKee		25		
1 1850	Raleigh	21	E. Strudwick	F. J. Haywood, C. E. Johnson, J. E. Williamson, W. G. Thomas	W. H. McKee	W. G. Hill	38	9	
2 1851	Raleigh	23	E. Strudwick	C. E. Johnson	W. H. McKee	W. G. Hill	46	0	
3 1852	Wilmington	38	J. E. Williamson	Thomas N. Cameron, William G. Hill, Johnston B. Jones, N. J. Pittman	E. B. Haywood	J. J. W. Tucker	72	12	
4 1853	Fayetteville	24	J. E. Williamson	William G. Hill, Johnston B. Jones, J. B. G. Myers, N. J. Pittman	W. W. Harris	Daniel Dupree	80	14	
5 1854	Raleigh	37	J. H. Dickson	N. J. Pittman, J. B. G. Myers, J. Graham Tull, A. D. McLean	S. S. Satchwell	Daniel Dupree	84	17	
6 1855	Salisbury	23	J. H. Dickson	J. Graham Tull, Owen Hadley, A. D. McLean, Hugh Kelly	S. S. Satchwell	J. B. Dunn	96	18	
7 1856	Raleigh	35	C. E. Johnson	Marcellus Whitehead, E. R. Gibson, Johnston B. Jones, O. F. Manson	S. S. Satchwell	J. B. Dunn	101	22	
8 1857	Edenton	25	C. E. Johnson	Marcellus Whitehead, O. F. Manson, H. W. Faison, E. T. Gibson	W. G. Thomas	J. B. Dunn	113	16	
9 1858	New Bern	69	W. H. McKee	Edward Warren, C. W. Graham, Caleb Winslow, A. B. Pierce	W. G. Thomas	J. B. Dunn	172	18	
10 1859	Statesville	81	W. H. McKee	James G. Ramsey, P. E. Hines, J. R. Mercer, W. T. Howard	W. G. Thomas	C. W. Graham			
11 1860	Washington	64	N. J. Pittman	P. T. Henry, R. H. Winborne, M. Whitehead, T. S. Leach	W. G. Thomas	C. W. Graham	233	18	
12 1861	Morganton	23	N. J. Pittman	J. J. Summerell, C. T. Murphy, G. W. Holmes, W. A. B. Norcom	W. G. Thomas	C. W. Graham	244	18	
13 1866	Raleigh	20	J. J. Summerell	E. Burke Haywood, R. H. Winborne, W. L. Barrow, J. W. Jones	W. G. Thomas	C. W. Graham			
14 1867	Tarboro	41	W. G. Thomas		S. S. Satchwell	C. W. Graham	288	11	
15 1868	Warrenton	27	S. S. Satchwell	Hugh Kelly, George A. Foote, Charles J. O'Hagan, J. H. Baker	Thomas F. Wood	J. W. Jones			
16 1869	Salisbury	36	E. B. Haywood	Thomas E. Wilson, A. B. Pierce, C. T. Murphy, M. A. Locke	Thomas F. Wood	J. W. Jones			
17 1870	Wilmington	38	C. J. O'Hagan	E. A. Anderson, F. N. Luckey, W. R. Sharpe, R. L. Payne	Thomas F. Wood	J. W. Jones			
18 1871	Raleigh	35	Hugh Kelley	D. N. Patterson, R. C. Pearson, J. B. Seavy, G. L. Kirby	Thomas F. Wood	J. W. Jones			
19 1872	New Bern	34	W. G. Hill	H. W. Faison, R. I. Hicks, G. H. Macon, W. A. B. Norcom	James McKee	J. W. Jones			
20 1873	Statesville	43	M. Whitehead	W. T. Ennett, William Little, Charles Duffy, P. T. Jerman	James McKee	H. T. Bahnson			
21 1874	Charlotte	56	W. A. B. Norcom	J. B. Jones, R. F. Lewis, C. G. Cox, J. L. Knight	James McKee	H. T. Bahnson			
22 1875	Wilson	60	J. W. Jones	Walker Debnam, J. A. Gibson, William Little, D. N. Patterson	James McKee	H. T. Bahnson	148	5	
23 1876	Fayetteville	33	Peter E. Hines	J. H. Baker, G. G. Smith, T. D. Haigh, J. K. Hall	James McKee	H. T. Bahnson	157	4	
24 1877	Salem	42	George A. Foote	J. K. Hall, B. W. Robinson, A. Holmes, A. A. Hill	James McKee	A. G. Carr	177	4	
25 1878	Goldshoro	79	R. L. Payne	E. M. Rountree, Richard Anderson, S. B. Flowers, L. A. Stith	L. J. Picot	A. G. Carr	194	6	
26 1879	Greensboro	109	Chas. Duffy, Jr.	J. A. Gibson, Willis Alston, James McKee, A. A. Hill	L. J. Picot	A. G. Carr	198	6	
27 1880	Wilmington	105	J. F. Shaffner	J. K. Hall, W. C. McDuffie, W. R. Wilson, R. F. Lewis	L. J. Picot	A. G. Carr	225	6	
28 1881	Asheville	92	R. B. Haywood	J. E. McRee, W. H. Lilly, R. H. Speight, W. J. H. Bellamy	L. J. Picot	A. G. Carr	254	6	
29 1882	Concord	65	Thos. F. Wood	T. J. Moore, D. J. Cain, S. E. Evans, John McDonald	L. J. Picot	A. G. Carr	297	7	
30 1883	Tarboro	112	J. K. Hall	A. W. Knox, J. M. Hadley, E. S. Foster, John Whitehead	L. J. Picot	A. G. Carr	310	7	
31 1884	Raleigh	112	A. B. Pierce	F. W. Potter, G. W. Graham, R. Dillard, G. W. Long	L. J. Picot	A. G. Carr	348	7	
32 1885	Durham	173	W. C. McDuffie	James McKee, T. E. Anderson, W. H. Whitehead, A. G. Carr	W. C. Murphy	R. L. Payne, Jr.	424	6	

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA FROM 1849 TO 1959—Continued

*Missing Data Not to be Found in Record

Date	Place of Meeting	Number in Attendance	President	Vice Presidents	Secretary	Treasurer	Members on Roll July 15	Honorary Members	Honorary Fellows*
33 1886	New Bern	113	Joseph Graham	H. T. Bahnson, L. J. Picot, J. L. McMillan, W. W. Faison	J. M. Baker	R. L. Payne, Jr.	438	7	
34 1887	Charlotte	112	H. T. Bahnson	G. G. Smith, J. L. Nicholson, C. M. Van Poole, H. B. Ferguson	J. M. Baker	R. L. Payne, Jr.	452	7	
35 1888	Fayetteville	133	T. D. Haigh	W. T. Ennett, J. A. Dunn, T. E. Anderson	J. M. Baker	C. M. Van Poole	306	6	
36 1889	Elizabeth City	50	W. T. Ennett	W. J. Jones, S. W. Stevenson, G. W. Long	J. M. Baker	C. M. Van Poole	410	6	
37 1890	Oxford	160	G. G. Thomas	R. L. Payne, Jr., Richard Dillard, S. D. Booth	J. M. Hays	C. M. Van Poole	414	6	
38 1891	Asheville	135	R. H. Lewis	S. W. Battle, J. L. Nicholson, W. H. Lilly	J. M. Hays	C. M. Van Poole	422	6	
39 1892	Wilmington	162	W. T. Cheatham	T. S. Burbank, J. W. Long, W. H. H. Cobb, W. D. Hillard	J. M. Hays	C. M. Van Poole	431	6	
40 1893	Raleigh	221	J. W. McNeill	W. C. Galloway, H. H. Harris, J. M. Hadley, Thomas Hill	R. D. Jewett	M. P. Perry	447	5	3
41 1894	Greensboro	166	W. H. H. Cobb	J. A. Hodges, R. W. Tate, Willis Alston, M. H. Fletcher	R. D. Jewett	M. P. Perry	451	5	3
42 1895	Goldsboro		J. H. Tucker	J. Howell Way, W. H. Harrell, O. McMullan, C. A. Misenheimer	R. D. Jewett	M. P. Perry	436	7	3
43 1896	Winston-Salem	158	R. L. Payne	S. D. Booth, J. P. Munroe, J. A. Burroughs, J. E. Grimsley	R. D. Jewett	M. P. Perry	452		3
44 1897	Morehead City	103	P. L. Murphy	J. C. Walton, A. A. Kent, M. R. Adams, B. L. Long	R. D. Jewett	M. P. Perry	406	6	3
45 1898	Charlotte	*	Francis Duffy	E. C. Register, A. T. Cotton, J. H. B. Knight, F. H. Russell	R. D. Jewett	M. P. Perry	437	6	21
46 1899	Asheville	152	L. J. Picot	I. W. Faison, J. W. White, H. H. Dodson, W. C. Brownson	Geo. W. Presley	G. T. Sikes	480	6	16
47 1900	Tarboro	115	George W. Long	C. M. Van Poole, James M. Parrott, T. B. Williams, W. D. Hillard	Geo. W. Presley	G. T. Sikes	482	6	21
48 1901	Durham	186	Julian M. Baker	M. H. Fletcher, C. A. Julian, D. A. Stanton, E. M. Summerell	Geo. W. Presley	G. T. Sikes	515	5	18
49 1902	Wilmington	147	Robert S. Young	A. G. Carr, E. D. Dixon-Carroll, I. M. Taylor, J. M. Parrott	Geo. W. Presley	G. T. Sikes	546	5	20
50 1903	Hot Springs	155	A. W. Knox	E. G. Moore, C. A. Julian, W. W. McKenzie, J. L. Nicholson	J. Howell Way	G. T. Sikes	530	6	19
51 1904	Raleigh	326	H. B. Weaver	John Hey Williams, John C. Rodman, S. F. Pfah	J. Howell Way	G. T. Sikes	1,033	8	17
52 1905	Greensboro	361	David T. Tayloe	C. A. Julian, John T. Burrus, I. W. Faison	J. Howell Way	G. T. Sikes	1,175	8	17
53 1906	Charlotte	406	E. C. Register	L. B. McBrayer, W. H. Cobb, Jr., W. O. Spencer	J. Howell Way	G. T. Sikes	1,234	8	16
54 1907	Morehead City	217	Samuel D. Booth	C. M. Strong, J. E. McLaughlin, W. F. Hargrove	David A. Stanton	H. McK. Tucker	888	7	16
55 1908	Winston-Salem	372	J. Howell Way	J. E. Stokes, J. A. Turner, W. H. Dixon	David A. Stanton	H. McK. Tucker	998	7	28
56 1909	Asheville	337	J. F. Highsmith	C. M. Van Poole, D. A. Garrison, D. O. Dees	David A. Stanton	H. McK. Tucker	1,067	7	25
57 1910	Wrightsville Beach	276	J. A. Burroughs, E. J. Wood	E. J. Wood, John Q. Myers, L. D. Wharton	David A. Stanton	H. D. Walker	1,080	8	35
58 1911	Charlotte	412	C. M. Van Poole	J. V. McGougan, W. E. Warren, L. N. Glenn	David A. Stanton	H. D. Walker	880	8	45
59 1912	Hendersonville	296	A. A. Kent	J. P. Monroe, W. P. Horton, J. G. Murphy	David A. Stanton	H. D. Walker	950	8	44
60 1913	Morehead City	232	J. P. Munroe	F. R. Harris, E. S. Bullock, L. B. Morse	John A. Ferrell	H. D. Walker	1,133	8	40
61 1914	Raleigh	431	J. M. Parrott	E. T. Dickinson, J. T. J. Battle, D. E. Sevier	John A. Ferrell	H. D. Walker	1,228	8	47
62 1915	Greensboro	443	L. B. McBrayer	J. J. Phillips, C. W. Moseley, S. M. Crowell	John A. Ferrell	H. D. Walker	1,221	6	68
63 1916	Durham	406	M. H. Fletcher	J. L. Nicholson, L. N. Glenn, W. H. Hardison	Benj. K. Hays	W. M. Jones	1,228	10	79
64 1917	Asheville	280	Charles O'H. Laughinghouse	D. J. Hill, J. L. Spruill, J. H. Shuford	Benj. K. Hays	W. M. Jones	1,271	11	81
65 1918	Pinehurst	291	I. W. Faison	Wm. deB. MacNider, Jos. B. Greene, Ben F. Royal	Benj. K. Hays	W. M. Jones	1,087	11	81
66 1919	Pinehurst	335	Cyrus Thompson	J. W. Halford, T. W. Davis, A. McN. Blair	Sec.-Treas. Benj. K. Hays	Acting Sec.-Treas. L. B. McBrayer	1,306	11	100
67 1920	Charlotte	479	C. V. Reynolds	H. D. Walker, F. Stanley Whitaker, Thos. I. Fox	Benj. K. Hays	L. B. McBrayer	1,497	12	100
68 1921	Pinehurst	404	T. E. Anderson	C. S. Lawrence, W. H. Ward, J. M. Manning	Benj. K. Hays	L. B. McBrayer	1,491	12	63
69 1922	Winston-Salem	507	H. A. Royster	W. T. Parrott, B. C. Nalle, J. R. McCracken	Sec.-Treas.	L. B. McBrayer	1,571	12	109
70 1923	Asheville	356	J. W. Long	F. M. Hanes, T. C. Johnson, B. L. Long		L. B. McBrayer	1,592	9	101
71 1924	Raleigh	525	J. V. McGougan	J. L. Spruill, Eugene B. Glenn, D. A. Garrison		L. B. McBrayer	1,604	9	106
72 1925	Pinehurst	550	Albert Anderson	W. L. Dunn, A. E. Bell, K. G. Averitt		L. B. McBrayer	1,657	10	116
73 1926	Wrightsville Beach	445	Wm. deB. MacNider	J. P. Matheson, W. W. Dawson, H. H. Bass		L. B. McBrayer	1,663	10	107
74 1927	Durham	653	John Q. Myers	J. W. Carroll, A. Y. Linville, C. H. Cocke		L. B. McBrayer	1,691	10	121
75 1928	Pinehurst	611	John T. Burrus	G. H. Macon, R. F. Leinbach, W. R. Griffin		L. B. McBrayer	1,738	11	143
76 1929	Greensboro	671	Thurman D. Kitchin	W. L. Dunn, Asheville, D. T. Tayloe, Jr., Washington, W. D. James, Hamlet		L. B. McBrayer	1,666	11	146
77 1930	Pinehurst	701	L. A. Crowell	W. B. Murphy, Wm. E. Warren, N. B. Adams		L. B. McBrayer	1,711	11	155

HISTORY OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA FROM 1849 TO 1959—Continued

Date	Place of Meeting	Number in Attendance	President	President-Elect	Vice Presidents	Sec.-Treas.	Members on Roll July 15	Honorary Members	Life Members
78 1931	Durham.....	714	J. G. Murphy.....	M. L. Stevens.....	C. A. Julian, Greensboro J. W. Davis, Statesville.....	L. B. McBrayer.....	1,600	10	164
79 1932	Winston-Salem.....	740	M. L. Stevens.....	Jno B. Wright.....	C. W. Banner, Greensboro W. W. Sawyer, Elizabeth City.....	L. B. McBrayer.....	1,559	10	166
80 1933	Raleigh.....	714	Jno. B. Wright.....	I. H. Manning.....	J. R. McCrackon, Waynesville.....	L. B. McBrayer.....	1,363	10	181
81 1934	Pinehurst.....	728	I. H. Manning.....	P. P. McCain.....	W. G. Suiter, Weldon R. L. Felts, Durham.....	L. B. McBrayer.....	1,563	10	210
82 1935	Pinehurst.....	706	P. P. McCain.....	Paul H. Ringer.....	H. D. Walker, Elizabeth City J. F. McKay, Buie's Creek William Allan, Charlotte.....	L. B. McBrayer.....	1,619	10	215
83 1936	Asheville.....	583	Paul H. Ringer.....	C. F. Strosnider.....	J. K. Pepper, Winston-Salem E. S. Bulluck, Wilmington.....	L. B. McBrayer.....	1,462	10	235
84 1937	Winston-Salem.....	767	C. F. Strosnider.....	Wingate M. Johnson.....	C. A. Woodard, Wilson Jno. F. Brownsberger, Fletcher.....	L. B. McBrayer.....	1,503	7	253
85 1938	Pinehurst.....	892	Wingate M. Johnson.....	J. Buren Sidbury.....	R. B. McKnight, Charlotte J. F. Abel, Waynesville.....	T. W. M. Long.....	1,715	7	284
86 1939	Cruise to Bermuda.....	319	J. Buren Sidbury.....	William Allan.....	C. B. Williams, Elizabeth City M. D. Hill, Raleigh.....	T. W. M. Long.....	1,605	8	313
87 1940	Pinehurst.....	835	William Allan.....	Hubert B. Haywood.....	F. Webb Griffith, Asheville Frank C. Smith, Charlotte.....	T. W. M. Long.....	1,661	7	311
88 1941	Pinehurst.....	755	Hubert B. Haywood.....	F. Webb Griffith.....	D. W. Holt, Greensboro T. C. Kerns, Durham.....	T. W. M. Long (1) I. H. Manning.....	1,700	7	309
89 1942	Charlotte.....	710	F. Webb Griffith.....	Donnel B. Cobb.....	Thos. DeL. Sparrow, Charlotte T. L. Carter, Gatesville.....	Roscoe D. McMillan.....	1,837	8	350
90 1943	Raleigh.....	736	Donnell B. Cobb.....	James W. Vernon.....	George S. Coleman, Raleigh Julian Moore, Asheville.....	Roscoe D. McMillan.....	1,919	8	361
91 1944	Pinehurst.....	760	James W. Vernon.....	Paul F. Whitaker.....	Fred C. Hubbard, North Wilkesboro George L. Carrington, Burlington.....	Roscoe D. McMillan.....	1,982	8	363
1945	No meeting because of O.D.T. restrictions		Paul F. Whitaker.....	Oren Moore.....	Wm. H. Smith, Goldsboro Zack D. Owens, Elizabeth City.....	Roscoe D. McMillan.....	1,811	7	383
92 1946	Pinehurst.....	889	Oren Moore.....		Wm. H. Smith, Goldsboro Zack D. Owens, Elizabeth City.....	Roscoe D. McMillan.....	1,939	6	397
93 1947	Virginia Beach, Va.....	444	Wm. M. Coppridge.....	Frank A. Sharpe.....	G. E. Bell, Wilson J. B. Bullitt, Chapel Hill.....	Roscoe D. McMillan.....	2,191	7	404
94 1948	Pinehurst.....	920	Frank A. Sharpe (2).....	James F. Robertson.....	V. K. Hart, Charlotte J. G. Raby, Tarboro.....	Roscoe D. McMillan.....	2,298	8	407
95 1949	Pinehurst.....	998	James F. Robertson.....	G. Westbrook Murphy.....	Joseph J. Combs, Raleigh Joseph A. Elliott, Charlotte.....	Roscoe D. McMillan.....	2,318	5	405
96 1950	Pinehurst.....	947	G. Westbrook Murphy.....	Roscoe D. McMillan.....	Ben F. Royal Joseph A. Elliott.....	Millard D. Hill.....	2,283	5	455
97 1951	Pinehurst.....	938	Roscoe D. McMillan.....	Frederic C. Hubbard.....	Henderson Irwin Forest M. Houser.....	Millard D. Hill.....	2,341	5	469
98 1952	Pinehurst.....	969	Frederic C. Hubbard.....	J. Street Brewer.....	Arthur Daughtridge George W. Paschal.....	Millard D. Hill.....	2,326	5	476
99 1953	Pinehurst.....	1016	J. Street Brewer.....	Joseph A. Elliott.....	John R. Bender John F. Foster.....	Millard D. Hill.....	2,673	5	486
100 1954	Pinehurst.....	1077	Joseph A. Elliott.....	Zack D. Owens.....	Julian A. Moore George W. Paschal, Jr.....	Millard D. Hill.....	2,801	6	486
101 1955	Pinehurst.....	991	Zack D. Owens.....	J. P. Rousseau.....	Elias S. Faison E. W. Schoenheit.....	Millard D. Hill.....	2,896	6	507
102 1956	Pinehurst.....	1022	James P. Rousseau.....	Donald B. Koonce.....	Milton S. Clark John S. Rhodes.....	Millard D. Hill.....	3,058	7	561
103 1957	Asheville.....	867	Donald B. Koonce.....	Edward W. Schoenheit.....	O. Norris Smith George W. Holmes.....	Millard D. Hill.....	3,127	8	522
104 1958	Asheville.....	781	Edw. W. Schoenheit.....	Lenox D. Baker.....	Amos N. Johnson Kenneth B. Geddie.....	John S. Rhodes.....	3,171	9	542
105 1959	Asheville.....	651	Lenox D. Baker.....	John C. Reece.....	Charles M. Norfleet, Jr. W. Walton Kitchin.....	John S. Rhodes.....	3,211	10	251
106 1960	Raleigh.....	843	John C. Reece.....	Amos N. Johnson.....	Theodore S. Raiford Charles T. Wilkinson.....	John S. Rhodes.....	3,247	12	472
107 1961	Asheville.....	636	Amos N. Johnson.....	Claude B. Squires.....		John S. Rhodes.....	3,248	12	438

†Died during his term of office; succeeded by E. J. Wood, first vice president.

‡Died during term of office

(1) Died during term of office; succeeded by I. H. Manning

(2) Died during term of office; succeeded by James F. Robertson, president-elect.

STATUS OF MEMBERSHIP BY COUNTIES—Continued

COUNTY	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	
Mitchell-Avery 13.....	5	8																													
Mitchell-Watauga 14.....																															
Mitchell-Yancey.....	9	7	9	9	8	7	3	6	4	5	6	5	7	3	5	7	10	13	10	10	10	10	10	9	9	9	10	10	13	11	
Montgomery 15.....	21	18	22	21	19	22	21	20	19	17	22	21	21	20	22	23	26	26	28	28	26	29	33	35	34	32	31	32	32	31	
Moore.....																															
Nash 16.....	35	25	35	39	34	36	32	39	37	38	43	44	45	40	40	55	62	69	66	66	63	65	68	69	73	76	77	80	80	80	
New Hanover.....	5	4	8	4	4	4	4	9	1	3	7	4	4	3	2	3	4	4	4	4	3	5	4	3	3	4	4	4	4	4	
Northampton.....	8	6	6	5	2	5	4	4	3	5	8	8	8	8	8	10	10	10	10	10	1	10	10	10	12	13	12	11	13	15	
Onslow.....																															
Orange 17.....	4	4	4	4	4	4	4	4	4	3	3	3	4	5	4	4	4	4	4	4	4	4	5	5	5	4	4	4	4	4	
Pamlico.....																															
Pasquotank-Camden.....																															
Currituck-Dare.....																															
Pasquotank-Camden.....																															
Dare 8.....	11	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1															
Pender.....																															
Perquimans 18.....	6	7	7	8	7	7	8	8	9	8	8	9	8	6	6	6	6	6	8	7	9	9	9	9	10	10	10	10	11	12	
Person.....	20	14	22	26	24	26	30	29	28	25	29	30	31	32	30	31	32	29	31	31	2	9	34	40	43	46	41	43	41	41	
Pitt.....	7	7	6	6	4	5	5	5	6	6	6	6	7	7	6	7	5	5	5	4	5	6	6	8	10	10	11	11	11	12	
Polk.....	14	10	11	13	10	9	11	11	13	12	13	14	15	16	18	19	20	15	15	20	21	26	24	28	28	28	28	27	27	28	
Richmond.....	15	16	15	16	15	17	16	15	16	16	15	17	17	16	18	19	20	19	20	15	18	22	23	24	28	20	20	22	22	25	
Robeson.....	22	23	25	27	28	29	34	33	35	35	35	36	38	38	38	40	47	47	45	45	42	42	44	48	45	43	46	49	48	49	
Rockingham.....	21	22	23	21	18	20	18	22	22	26	24	29	29	25	29	29	30	31	30	30	30	32	37	36	37	36	34	35	36	36	
Rowan-Davie.....	33	24	34	30	27	28	26	24	27	26	24	23	22	22	22	29	30	31	30	30	42	40	42	48	58	62	63	63	63	63	
Rutherford.....	21	19	20	21	23	22	23	23	24	22	22	22	22	22	22	24	25	24	21	21	21	25	25	26	26	27	25	27	25	25	
Sampson.....	14	14	14	14	14	16	16	16	18	18	16	15	16	10	16	15	14	15	15	18	17	18	17	18	19	19	17	17	17	17	
Scotland.....	11	11	11	11	10	11	11	10	10	10	10	9	10	10	9	12	10	13	13	13	14	14	14	14	14	13	13	16	14	17	
Stanly 15.....	13	12	16	17	18	19	18	20	16	17	20	20	17	16	18	21	26	26	22	22	24	25	26	29	29	29	27	27	28	27	27
Stokes.....	6	1	1	1																											
Surry 19.....	17	12	25	22	17	15	14	12	18	16	19	23	27																		
Surry-Yadkin.....																															
Swain 10.....																															
Transylvania.....	1	3	2	2	2	4	5	3	3	2	3	3	2	2	2	2	6	4	7	8	7	10	10	11	9	11	11	12	13	12	
Tyrrell 20.....																															
Union.....	9	10	10	11	10	8	11	13	13	14	15	14	14	3	13	14	14	14	15	15	16	17	15	15	16	17	16	15	15	16	
Vance.....	7	8	9	9	8	8	6	10	10	10	12	10	10	8	11	11	12	12	11	11	12	13	14	15	16	17	16	16	15	16	
Wake.....	86	87	89	88	89	95	100	95	94	93	87	98	96	96	92	110	108	114	120	126	114	146	152	147	155	156	158	159	165	173	
Warren.....	6	6	5	6	2	2	2	2	3	2	3	4	5	2	6	6	5	6	6	6	5	7	8	9	8	8	7	8	8	8	
Washington-Tyrrell 11.....	3																														
Watauga 21.....																															
Watauga-Ashe 22.....	3	5	6	6	5	6	6	6	4	5	7	8	5	2	7																
Wayne.....	32	22	27	29	27	29	30	31	34	33	35	38	38	37	37	38	38	37	37	37	38	41	37	39	42	43	44	47	50	52	
Wilkes 2.....	10																														
Wilkes-Allegany.....	9	13	10	14	13	14	15	13	16	17	17	17	14	16	17	17	18	18	19	17	17	18	21	21	20	21	22	23	27	18	
Wilson.....	22	21	25	29	31	25	25	24	25	27	27	31	29	27	30	33	33	35	28	28	30	34	34	37	36	38	39	38	40	42	
Yadkin 19.....	4	1																													
Yancey.....	1																														
Totals.....	1,559	1,363	1,563	1,610	1,462	1,503	1,715	1,605	1,661	1,694	1,837	1,919	1,982	1,811	1,939	2,191	2,298	2,318	2,278	2,343	2,326	2,673	2,801	2,896	3,058	3,127	3,171	3,211	3,247	3,322	

(1) See Iredell-Alexander. (2) See Wilkes-Allegany. (3) See Watauga-Ashe and Ashe-Watauga. (4) See Mitchell-Avery. (5) See Pasquotank-Camden-Dare and Pasquotank-Camden-Currituck-Dare. (6) See Alamance-Caswell. (7) See Macon-Clay. (8) See Pasquotank-Camden-Currituck-Dare. (9) See Rowan-Swain. (10) See Jackson-Swain. (11) See Martin-Washington-Tyrrell. (12) See Mitchell-Avery. (13) See Wilkes-Allegany. (14) See Wilkes-Allegany. (15) See Wilkes-Allegany. (16) See Edgecombe-Nash. (17) See Durham-Orange. (18) See Chowan-Perquimans. (19) See Surry-Yadkin. (20) See Washington-Tyrrell and Martin-Washington-Tyrrell. (21) See Mitchell-Watauga, Watauga-Ashe, and Ashe-Watauga. (22) See Ashe-Watauga.

ROSTER OF MEMBERS OF NORTH CAROLINA STATE BOARD OF HEALTH FROM ORGANIZATION IN 1877 TO 1961

<i>Name</i>	<i>Address</i>	<i>Appointed by</i>	<i>Term</i>
S. S. Satchwell, M.D., President	Rocky Point	State Society	1877 to 1878
Thomas F. Wood, M.D., Secretary	Wilmington	State Society	1877 to 1878
Joseph Graham, M.D.	Charlotte	State Society	1877 to 1878
Charles Duffy, Jr., M.D.	New Bern	State Society	1877 to 1878
Peter E. Hines, M.D.	Raleigh	State Society	1877 to 1878
George A. Foote, M.D.	Warrenton	State Society	1877 to 1878
S. S. Satchwell, M.D., President	Rocky Point	State Society	1878 to 1884
Thomas F. Wood, M.D., Secretary	Wilmington	State Society	1878 to 1884
Charles J. O'Hagan, M.D., President	Greenville	State Society	1878 to 1882
George A. Foote, M.D.	Warrenton	State Society	1878 to 1882
Marcellus Whitehead, M.D.	Salisbury	State Society	1878 to 1880
R. L. Payne, M.D.	Lexington	State Society	1878 to 1880
H. G. Woodfin, M.D.	Franklin	Gov. Z. B. Vance	1878 to 1880
A. R. Ledoux, Chemist	Chapel Hill	Gov. Z. B. Vance	1878 to 1880
William Cain, Civil Engineer	Charlotte	Gov. Z. B. Vance	1878 to 1880
R. L. Payne, M.D.	Lexington	State Society	1881 to 1887
M. Whitehead, M.D., President	Salisbury	State Society	1881 to 1884
S. H. Lyle, M.D.	Franklin	Gov. T. J. Jarvis	1881 to 1883
William Cain, Civil Engineer	Charlotte	Gov. T. J. Jarvis	1881 to 1883
W. G. Simmons, Chemist	Wake Forest	Gov. T. J. Jarvis	1881 to 1883
J. W. Jones, M.D., President	Wake Forest	State Society	1883 to 1889
John McDonald, M.D.	Washington	State Society	1883 to 1889
S. H. Lyle, M.D.	Franklin	Gov. T. J. Jarvis	1883 to 1885
W. G. Simmons, Chemist	Wake Forest	Gov. T. J. Jarvis	1883 to 1885
Arthur Winslow, Civil Engineer	Raleigh	Gov. T. J. Jarvis	1884 to 1886
R. H. Lewis, M.D.	Raleigh	State Board of Health	1884 to 1886
Thomas F. Wood, M.D., Secretary	Wilmington	State Society	1885 to 1887
William D. Hilliard, M.D.	Asheville	State Society	1885 to 1891
Arthur Winslow, Civil Engineer	Raleigh	Gov. A. M. Scales	1885 to 1891
W. G. Simmons, Chemist	Wake Forest	Gov. A. M. Scales	1885 to 1887
J. H. Tucker, M.D.	Henderson	Gov. A. M. Scales	1885 to 1887
R. H. Lewis, M.D., Secretary	Raleigh	State Society	1887 to 1888
H. T. Bahnson, M.D., President	Winston	State Society	1887 to 1888
Arthur Winslow, Civil Engineer	Raleigh	Gov. A. M. Scales	1887 to 1889
W. G. Simmons, Chemist	Wake Forest	Gov. A. M. Scales	1887 to 1889
J. H. Tucker, M.D.	Henderson	Gov. A. M. Scales	1888 to 1891
J. L. Ludlow, Civil Engineer	Winston	Gov. A. M. Scales	1888 to 1891
J. H. Tucker, M.D.	Henderson	Gov. D. G. Fowle	1888 to 1891
F. P. Venable, Ph.D. Chemist	Chapel Hill	Gov. D. G. Fowle	1889 to 1893
J. L. Ludlow, Civil Engineer	Winston	Gov. D. G. Fowle	1889 to 1892
J. A. Hodges, M.D.	Fayetteville	State Society	1889 to 1893
J. M. Baker, M.D.	Farboro	State Society	1891 to 1893
J. H. Tucker, M.D.	Henderson	Gov. T. M. Holt	1891 to 1893
F. P. Venable, Ph.D., Chemist	Chapel Hill	Gov. T. M. Holt	1891 to 1892
J. L. Ludlow, Civil Engineer	Winston	Gov. T. M. Holt	1892 to 1897
Thomas F. Wood, M.D., Secretary†	Wilmington	State Society	1891 to 1895
George G. Thomas, M.D., President	Wilmington	State Board of Health	1892 to 1895
S. Westray Battle, M.D.	Asheville	State Society	1893 to 1895
W. H. Harrell, M.D.	Williamston	State Society	1893 to 1895
John Whitehead, M.D.	Salisbury	State Board of Health	1893 to 1895
W. H. G. Lucas	White Hall	Gov. Elias Carr	1893 to 1895
F. P. Venable, Ph.D., Chemist	Chapel Hill	Gov. Elias Carr	1893 to 1895
John C. Chase, Civil Engineer	Wilmington	Gov. Elias Carr	1894 to 1897
R. H. Lewis, M.D., Secretary	Raleigh	Gov. Elias Carr	1895 to 1897
W. P. Beall, M.D.	Greensboro	Gov. Elias Carr	1895 to 1897
W. J. Lumsden, M.D.	Elizabeth City	Gov. Elias Carr	1895 to 1897
John Whitehead, M.D.	Salisbury	State Society	1895 to 1897
W. H. Harrell, M.D.	Williamston	State Society	1895 to 1897
W. P. Beall, M.D.	Greensboro	Gov. Elias Carr	1895 to 1897
R. H. Lewis, M.D., Secretary	Raleigh	Gov. Elias Carr	1897 to 1899
F. P. Venable, Ph.D., Chemist	Chapel Hill	Gov. Elias Carr	1897 to 1899
John C. Chase, Civil Engineer	Wilmington	Gov. Elias Carr	1897 to 1899
Charles J. O'Hagan, M.D.	Greenville	Gov. D. L. Russell	1897 to 1899
John D. Spicer, M.D.	Goldsboro	Gov. D. L. Russell	1897 to 1899
J. L. Nicholson, M.D.	Richlands	Gov. D. L. Russell	1899 to 1901
R. H. Lewis, M.D., Secretary	Raleigh	Gov. D. L. Russell	1899 to 1901
A. W. Shaffer, Civil Engineer	Raleigh	Gov. D. L. Russell	1899 to 1901
Charles J. O'Hagan, M.D.	Greenville	Gov. D. L. Russell	1899 to 1901
J. L. Nicholson, M.D.	Richlands	Gov. D. L. Russell	1899 to 1901
Albert Anderson, M.D.	Wilson	Gov. D. L. Russell	1899 to 1901
George G. Thomas, M.D., President	Wilmington	State Society	1899 to 1901

† Died in 1892, leaving a five-year unexpired term, which was filled by the Board

<i>Name</i>	<i>Address</i>	<i>Appointed by</i>	<i>Term</i>
S. Westray Battle, M.D.	Asheville	State Society	1899 to 1901
H. W. Lewis, M.D.	Jackson	State Society	1899 to 1901
H. H. Dodson, M.D.	Milton	State Society	1901 to 1907
R. H. Lewis, M.D., Secretary	Raleigh	Gov. C. B. Aycock	1901 to 1907
W. P. Ivey, M.D.	Lenoir	Gov. C. B. Aycock	1901 to 1907
George G. Thomas, M.D., President	Wilmington	Gov. C. B. Aycock	1901 to 1905
Francis Duffy, M.D.	New Bern	Gov. C. B. Aycock	1901 to 1905
J. L. Ludlow, Civil Engineer	Winston	Gov. C. B. Aycock	1901 to 1905
S. Westray Battle, M.D.	Asheville	State Society	1901 to 1907
H. W. Lewis, M.D.	Jackson	State Society	1901 to 1907
W. H. Whitehead, M.D.	Rocky Mount	State Society	1901 to 1905
J. L. Nicholson, M.D.	Richlands	State Society	1901 to 1905
J. L. Ludlow, Civil Engineer	Winston	Gov. C. B. Aycock	1903 to 1909
J. Howell Way, M.D.	Waynesville	Gov. R. B. Glenn	1905 to 1911
W. O. Spencer, M.D.	Winston	Gov. R. B. Glenn	1905 to 1911
George G. Thomas, M.D., President	Wilmington	State Society	1905 to 1911
Thomas E. Anderson, M.D.	Statesville	State Society	1907 to 1913
R. H. Lewis, M.D.	Raleigh	Gov. R. B. Glenn	1907 to 1913
E. C. Register, M.D.	Charlotte	Gov. R. B. Glenn	1907 to 1909
David T. Tayloe, M.D.	Washington	State Society	1907 to 1913
James A. Burroughs, M.D. ¹	Asheville	State Society	1909 to 1913
J. E. Ashcraft, M.D.	Monroe	State Board of Health	1909 to 1913
J. L. Ludlow, Civil Engineer	Winston-Salem	Gov. W. W. Kitchin	1911 to 1917
J. Howell Way, M.D., President	Waynesville	Gov. W. W. Kitchin	1911 to 1917
W. O. Spencer, M.D.	Winston-Salem	Gov. W. W. Kitchin	1911 to 1917
Thomas E. Anderson, M.D.	Statesville	State Society	1911 to 1917
Charles O'H. Laughinghouse, M.D.	Greenville	State Society	1913 to 1919
R. H. Lewis, M.D.	Raleigh	Gov. Locke Craig	1913 to 1919
Edw. J. Wood, M.D.	Wilmington	Gov. Locke Craig	1913 to 1915
A. A. Kent, M.D. ²	Lenoir	State Society	1913 to 1919
Cyrus Thompson, M.D.	Jacksonville	State Society	1913 to 1919
Fletcher R. Harris, M.D.	Henderson	State Board of Health	1915 to 1921
J. L. Ludlow, Civil Engineer	Winston-Salem	Gov. Locke Craig	1917 to 1923
J. Howell Way, M.D., President	Waynesville	Gov. T. W. Bickett	1917 to 1923
E. C. Register, M.D. ¹	Charlotte	Gov. T. W. Bickett	1917 to 1923
Thomas E. Anderson, M.D.	Statesville	State Society	1917 to 1923
Charles O'H. Laughinghouse, M.D.	Greenville	State Society	1919 to 1923
Fletcher R. Harris, M.D. ³	Henderson	State Society	1919 to 1923
A. J. Crowell, M.D.	Charlotte	Gov. T. W. Bickett	1921 to 1923
Chas. E. Waddell, C. E. ⁴	Asheville	Gov. C. Morrison	1919 to 1925
Cyrus Thompson, M.D.	Jacksonville	State Society	1919 to 1925
R. H. Lewis, M.D.	Raleigh	Gov. T. W. Bickett	1923 to 1925
E. J. Tucker, D.D.S.	Roxboro	Gov. T. W. Bickett	1923 to 1929
J. Howell Way, M.D., President	Waynesville	Gov. C. Morrison	1923 to 1929
A. J. Crowell, M.D.	Charlotte	Gov. C. Morrison	1923 to 1927
James P. Stowe, Ph.G.	Charlotte	Gov. C. Morrison	1923 to 1925
D. A. Stanton, M.D.	High Point	State Board of Health	1923 to 1929
Thomas E. Anderson, M.D.	Statesville	State Society	1923 to 1926
Charles O'H. Laughinghouse, M.D. ⁵	Greenville	State Society	1925 to 1931
Cyrus Thompson, M.D. ¹	Jacksonville	State Society	1925 to 1931
D. A. Stanton, M.D.	High Point	State Society	1925 to 1931
R. H. Lewis, M.D. ¹	Raleigh	Gov. A. W. McLean	1926 to 1931
Jno. B. Wright, M.D. ⁶	Raleigh	Gov. A. W. McLean	1925 to 1931
E. J. Tucker, D.D.S. ⁶	Roxboro	Gov. A. W. McLean	1926 to 1927
W. S. Rankin, M.D. ⁴	Charlotte	State Board of Health	1927 to 1929
L. E. McDaniel, M.D.	Jackson	State Board of Health	1927 to 1929
Chas. C. Orr, M.D.	Asheville	Gov. A. W. McLean	1929 to 1935
Thomas E. Anderson, M.D. ⁵	Statesville	State Society	1929 to 1935
L. E. McDaniel, M.D. ⁶	Jackson	State Society	1927 to 1933
James P. Stowe, Ph.G. ⁶	Charlotte	Gov. A. W. McLean	1929 to 1935
A. J. Crowell, M.D. ⁶	Charlotte	Gov. O. Max Gardner	1930 to 1931
J. M. Parrott, M.D. ⁶	Kinston	State Board of Health	1929 to 1935
Chas. C. Orr, M.D. ⁶	Asheville	Gov. O. Max Gardner	1931 to 1935
J. M. Parrott, M.D. ⁵	Kinston	State Society	1931 to 1935
C. V. Reynolds, M.D.	Asheville	State Society	1931 to 1933
L. B. Evans, M.D.	Windsor	State Society	1931 to 1933
S. D. Craig, M.D.	Winston-Salem	State Society	1931 to 1933
John T. Burrus, M.D.	High Point	Gov. O. Max Gardner	1931 to 1933
J. N. Johnson, D.D.S.	Goldsboro	Gov. O. Max Gardner	1931 to 1933
J. A. Goode, Ph.G.	Asheville	Gov. O. Max Gardner	1931 to 1933
H. L. Large, M.D.	Rocky Mount	Gov. O. Max Gardner	1931 to 1935
H. G. Baity, C.E.	Chapel Hill	Gov. O. Max Gardner	1931 to 1935

¹ Died leaving unexpired term.² Resigned to become member of General Assembly.³ Resigned to become Health Officer Vance County.⁴ Resigned.⁵ Resigned to become Secretary of State Board of Health⁶ Term terminated on account of the reorganization of the State Board of Health by General Assembly.

<i>Name</i>	<i>Address</i>	<i>Appointed by</i>	<i>Term</i>
Grady G. Dixon, M.D. ⁷	Ayden	Ex. Com. State Society	1931 to 1932
Grady G. Dixon, M.D. ⁷	Ayden	State Society	1932 to 1935
S. D. Craig, M.D.	Winston-Salem	State Society	1933 to 1937
W. T. Rainey, M.D.	Fayetteville	State Society	1933 to 1937
J. N. Johnson, D.D.S.	Goldsboro	Gov. J. C. B. Ehringhaus	1933 to 1937
Hubert B. Haywood, M.D.	Raleigh	Gov. J. C. B. Ehringhaus	1933 to 1937
James P. Stowe, Ph.G.	Charlotte	Gov. J. C. B. Ehringhaus	1933 to 1937
Grady G. Dixon, M.D.	Ayden	State Society	1935 to 1939
J. LaBruce Ward, M.D.	Asheville	State Society	1935 to 1939
H. Lee Large, M.D.	Rocky Mount	Gov. J. C. B. Ehringhaus	1935 to 1939
H. G. Baity, C.E.	Chapel Hill	Gov. J. C. B. Ehringhaus	1935 to 1939
J. N. Johnson, D.D.S.	Goldsboro	Gov. Clyde R. Hoey	1937 to 1941
Hubert B. Haywood, M.D.	Raleigh	Gov. Clyde R. Hoey	1937 to 1941
James P. Stowe, Ph.G.	Charlotte	Gov. Clyde R. Hoey	1937 to 1941
S. D. Craig, M.D.	Winston-Salem	State Society	1937 to 1941
W. T. Rainey, M.D.	Fayetteville	State Society	1937 to 1941
Grady G. Dixon, M.D.	Ayden	State Society	1939 to 1943
J. LaBruce Ward, M.D.	Asheville	State Society	1939 to 1943
H. Lee Large, M.D.	Rocky Mount	Gov. Clyde R. Hoey	1939 to 1943
H. G. Baity, Sc.D.	Chapel Hill	Gov. Clyde R. Hoey	1939 to 1943
C. C. Fordham, Jr., Ph.G. ⁸	Greensboro	Gov. Clyde R. Hoey	1940 to 1943
S. D. Craig, M.D.	Winston-Salem	State Society	1941 to 1945
W. T. Rainey, M.D.	Fayetteville	State Society	1941 to 1945
Hubert B. Haywood, M.D.	Raleigh	Gov. J. Melville Broughton	1941 to 1945
J. N. Johnson, D.D.S.	Goldsboro	Gov. J. Melville Broughton	1941 to 1945
James O. Nolan, M.D.	Kannapolis	Gov. J. Melville Broughton	1941 to 1945
Grady G. Dixon, M.D.	Ayden	State Society	1943 to 1947
J. LaBruce Ward, M.D.	Asheville	State Society	1943 to 1947
H. Lee Large, M.D.	Rocky Mount	Gov. J. Melville Broughton	1943 to 1947
Larry I. Moore, Jr.	Wilson	Gov. J. Melville Broughton	1943 to 1947
S. D. Craig, M.D., Pres.	Winston-Salem	State Society	1945 to 1949
W. T. Rainey, M.D.	Fayetteville	State Society	1945 to 1949
Hubert B. Haywood, M.D.	Raleigh	Gov. R. Gregg Cherry	1945 to 1949
James O. Nolan, M.D.	Kannapolis	Gov. R. Gregg Cherry	1945 to 1949
Paul Jones, D.D.S. ⁹	Farmville	Gov. R. Gregg Cherry	1946 to 1949
Jasper C. Jackson, Ph.G. ¹⁰	Lumberton	Gov. R. Gregg Cherry	1945 to 1947
Grady G. Dixon, M.D., Pres.	Ayden	State Society	1947 to 1951
H. Lee Large, M.D.	Rocky Mount	Gov. R. Gregg Cherry	1947 to 1951
J. LaBruce Ward, M.D.	Asheville	State Society	1947 to 1951
Hubert B. Haywood, M.D.	Raleigh	Gov. W. Kerr Scott	1949 to 1953
Mrs. James B. Hunt	Lucama	Gov. W. Kerr Scott	1949 to 1953
A. C. Current, D.D.S.	Gastonia	Gov. W. Kerr Scott	1949 to 1953
John R. Bender, M.D.	Winston-Salem	State Society	1949 to 1953
Benjamin J. Lawrence, M.D.	Raleigh	State Society	1949 to 1953
G. Grady Dixon, M.D.	Ayden	Medical Society	1951 to 1955
George Curtis Crump, M.D.	Asheville	Medical Society	1951 to 1955
John P. Henderson, Jr., M.D. ¹¹	Sneads Ferry	Gov. Wm. B. Umstead	1954 to 1955
H. C. Lutz, Phg.	Hickory	Gov. W. Kerr Scott	1951 to 1955
Hubert B. Haywood, M.D. ¹²	Raleigh	Gov. Wm. Umstead	1953 to 1957
Mrs. J. E. Latta	Hillsboro	Gov. Wm. Umstead	1953 to 1957
A. C. Current, D.D.S.	Gastonia	Gov. Wm. Umstead	1953 to 1957
John R. Bender, M.D.	Winston-Salem	Medical Society	1953 to 1957
Benjamin J. Lawrence, M.D.	Raleigh	Medical Society	1953 to 1957
G. Grady Dixon, M.D. ¹⁵	Ayden	Medical Society	1955 to 1959
George Curtis Crump, M.D. ¹²	Asheville	Medical Society	1955 to 1959
Roger W. Morrison, M.D. ¹⁴	Asheville	Medical Society	1957 to 1957
John P. Henderson, Jr., M.D.	Sneads Ferry	Gov. Luther H. Hodges	1955 to 1959
H. C. Lutz, Phg.	Hickory	Gov. Luther H. Hodges	1955 to 1959
Lenox D. Baker, M.D. ¹³	Durham	Gov. Luther H. Hodges	1956 to 1957
Earl W. Brain, M.D. ¹⁶	Raleigh	Medical Society	1958 to 1959
Mrs. J. E. Latta	Hillsboro	Gov. Luther H. Hodges	1957 to 1961
Roger W. Morrison, M.D.	Asheville	Medical Society	1957 to 1959
John R. Bender, M. D.	Winston-Salem	Medical Society	1957 to 1961
Z. L. Edwards, D.D.S.	Washington	Gov. Luther H. Hodges	1957 to 1961
Chas. R. Bugg, M.D., Pres.	Raleigh	Medical Society	1957 to 1961
Lenox D. Baker, M.D.	Durham	Gov. Luther H. Hodges	1957 to 1961

7 To fill vacancy caused by resignation of Dr. J. M. Parrott.

8 To fill vacancy caused by the death of James P. Stowe, Ph.G.

9 To fill vacancy caused by resignation of J. N. Johnson, D.D.S.

10 To fill vacancy caused by resignation of Larry I. Moore, Jr.

11 To fill vacancy caused by the death of Dr. H. Lee Large.

12 Resigned

13 To fill vacancy caused by resignation of Dr. Hubert B. Haywood.

14 To fill vacancy caused by resignation of Dr. George Curtis Crump

15 Died leaving unexpired term.

16 To fill vacancy caused by the death of Dr. G. Grady Dixon.

ROSTER OF MEMBERS OF THE VARIOUS BOARDS OF MEDICAL EXAMINERS OF THE STATE OF NORTH CAROLINA

FIRST BOARD

James H. Dickson, Wilmington	1859-1866
Charles E. Johnson, Raleigh	1859-1866
Caleb Winslow, Hertford	1859-1866
Otis F. Manson, Townsville	1859-1866
William H. McKee, Raleigh	1859-1866
Christopher Happoldt, Morganton	1859-1866
J. Graham Tull, New Bern	1859-1866
Samuel T. Iredell, Secretary	1859-1866

SECOND BOARD

N. J. Pittman, Tarboro	1866-1872
E. Burke Haywood, Raleigh	1866-1872
R. H. Winborne, Edenton	1866-1872
S. S. Satchwell, Rocky Point	1866-1872
J. J. Summerell, Salisbury	1866-1872
R. B. Haywood, Raleigh	1866-1872
M. Whitehead, Salisbury	1866-1872
J. F. Shaffner, Salem	1866-1872
William Little, Secretary	1866-1872
Thomas F. Wood, Secretary, Wilmington	1867-1872

THIRD BOARD

Charles J. O'Hagan, Greenville	1872-1878
W. A. B. Norcom, Edenton	1872-1878
C. Tate Murphy, Clinton	1872-1878
George A. Foote, Warrenton	1872-1878
J. W. Jones, Tarboro	1872-1878
R. L. Payne, Lexington	1872-1878
Charles Duffy, Jr., Secretary, New Bern	1872-1878

FOURTH BOARD

Peter E. Hines, Raleigh	1878-1884
Thomas D. Haigh, Fayetteville	1878-1884
George L. Kirby, Goldsboro	1878-1884
Thomas F. Wood, Wilmington	1878-1884
Joseph Graham, Charlotte	1878-1884
Robert I. Hicks, Williamston ¹	1878-1880
Richard H. Lewis, Raleigh ²	1880-1884
Henry T. Bahnson, Secretary, Salem	1878-1884

FIFTH BOARD

William R. Wood, Scotland Neck	1884-1890
Augustus W. Knox, Raleigh	1884-1890
Francis Duffy, New Bern	1884-1890
Patrick L. Murphy, Morganton	1884-1890
Willis Alston, Littleton	1884-1890
J. A. Reagan, Weaverville	1884-1890
W. J. H. Bellamy, Secretary, Wilmington	1884-1890

SIXTH AND SEVENTH BOARDS³

R. L. Payne, Jr., Lexington	1890-1892
George W. Purefoy, Asheville	1890-1892
George G. Thomas, Wilmington	1890-1894
Robert S. Young, Concord	1890-1894
William H. Whitehead, Rocky Mount	1890-1896
George W. Long, Graham	1890-1896
L. J. Picot, Secretary, Littleton	1890-1896
Julian M. Baker, Tarboro	1892-1898
H. B. Weaver, Secretary, Asheville	1892-1898
J. M. Hays, Greensboro ⁴	1894-1897
Kemp P. Battle, Jr., Raleigh ⁵	1897-1900
Thomas S. Burbank, Wilmington ¹	1894-1898
Richard H. Whitehead, Chapel Hill ⁴	1896-1898
William H. H. Cobb, Goldsboro ⁶	1898-1900
J. Howell Way, Secretary, Waynesville ⁷	1898-1902
David T. Tayloe, Washington	1896-1902
Thomas E. Anderson, Sec., Statesville	1896-1902
Albert Anderson, Wilson ⁸	1896-1902
Edward C. Register, Charlotte ⁸	1898-1902
Thomas S. McMullan, Hertford ⁸	1900-1902
John C. Walton ⁸	1900-1902

EIGHTH BOARD

A. A. Kent, Lenoir	1902-1908
Charles O'H. Laughinghouse, Greenville	1902-1903
M. H. Fletcher, Asheville	1902-1903
James M. Parrott, Kinston	1902-1903
J. T. J. Battle, Greensboro	1902-1908
Frank H. Russell, Wilmington	1902-1903
George W. Pressly, Secretary, Charlotte ¹	1902-1906
G. T. Sikes, Secretary, Grissom ⁹	1906-1908

NINTH BOARD

Lewis B. McBrayer, Asheville	1908-1914
John C. Rodman, Washington	1908-1914
William W. McKenzie, Salisbury	1908-1914
Henry H. Dodson, Greensboro	1908-1914
John Bynum, Winston-Salem	1908-1914
J. L. Nicholson, Richlands	1908-1914
Benj. K. Hays, Secretary, Oxford	1908-1914

TENTH BOARD

Isaac M. Taylor, Morganton	1914-1920
John Q. Myers, Charlotte	1914-1920
Jacob F. Highsmith, Fayetteville	1914-1920
Martin L. Stevens, Asheville	1914-1920
Charles T. Harper, Wilmington ⁴	1914-1915
Edwin G. Moore, Elm City ¹⁰	1915-1920
John G. Blount, Washington ¹¹	1914-1920
Hubert A. Royster, Secretary, Raleigh	1914-1920

ELEVENTH BOARD

Lester A. Crowell, Lincolnton	1920-1926
William P. Holt, Duke	1920-1926
J. Gerald Murphy, Wilmington	1920-1926
Lucius N. Glenn, Gastonia	1920-1926
Clarence A. Shore, Raleigh	1920-1926
William M. Jones, Greensboro	1920-1926
Kemp P. B. Bonner, Sec., Morehead City	1920-1926

TWELFTH BOARD

Paul H. Ringer, Asheville	1926-1932
W. Houston Moore, Wilmington	1926-1932
T. W. M. Long, Roanoke Rapids	1926-1932
W. W. Dawson, Grifton ⁴	1926-1930
J. K. Pepper, Winston-Salem	1926-1932
Foy Roberson, Durham	1926-1932
John W. McConnell, Secretary, Davidson	1926-1932
David T. Tayloe, Jr., Washington ¹²	1930-1932

THIRTEENTH BOARD

Ben F. Royal, Morehead City	1932-1938
Benj. J. Lawrence, Secretary, Raleigh	1932-1933
F. Webb Griffith, Asheville	1932-1933
Hamilton W. McKay, Charlotte	1932-1933
J. W. Vernon, Morganton	1932-1933
W. H. Smith, Goldsboro	1932-1933
K. G. Averitt, Cedar Creek ⁴	1932-1936
Roscoe D. McMillan, Red Springs ¹³	1936-1933

¹ Resigned before expiration of term.

² Elected for unexpired term of Dr. Hicks.

³ In 1890 the Medical Society of the State of North Carolina adopted the plan of electing members of the Board in such a manner that the terms would expire at different intervals of two years. This practice was followed for twelve years, or until 1902, when the plan was abandoned; an equivalent of two terms of six years each. It is evident that the Society arranged to abandon the policy as early as 1898, as two members were elected for short terms, and two years later two other members were elected for still shorter terms. It is therefore impossible to separate the sixth and seven Boards, since the membership was overlapping.

⁴ Died before the expiration of his term.

⁵ Elected to serve unexpired term of Dr. Hays.

⁶ Elected to serve the unexpired term of Dr. Burbank.

⁷ Elected to serve the unexpired term of Dr. Whitehead.

⁸ Elected for short term expiring in 1902.

⁹ Elected to serve the unexpired term of Dr. Pressly.

¹⁰ Elected to serve the unexpired term of Dr. Harper.

¹¹ Died a few months before the expiration of his term;

such a short time that the vacancy was not filled.

¹² Elected to serve unexpired term of Dr. W. W.

Dawson.

¹³ Elected to serve unexpired term of Dr. Averitt.

FOURTEENTH BOARD

Karl B. Pace, Greenville	1938-1944
William M. Coppridge, Durham	1938-1944
Frank A. Sharpe, Greensboro	1938-1944
Lewis W. Elias, Asheville ¹⁴	1938-1943
J. Street Brewer, Roseboro	1938-1944
W. D. James, Secretary, Hamlet	1938-1944
L. A. Crowell, Jr., Lincolnton	1938-1944
John LaBruce Ward, Asheville ¹⁴	1943-1944

FIFTEENTH BOARD

C. W. Armstrong, Salisbury	1944-1950
Paul G. Parker, Erwin	1944-1950
M. D. Bonner, Jamestown	1944-1950
T. Leslie Lee, Kinston	1944-1950
Roy B. McKnight, Charlotte	1944-1950
M. A. Pittman, Wilson	1944-1950
Ivan M. Procter, Secretary, Raleigh	1944-1950
James B. Bullitt, Chapel Hill ¹⁵	1949-1950
Paul F. Whitaker, Kinston ¹⁶	1950

SIXTEENTH BOARD

Amos N. Johnson, Garland	1950-1956
Heyward C. Thompson, Shelby	1950-1956
James P. Rousseau, Winston-Salem	1950-1956
Newsom P. Battle, Rocky Mount	1950-1956
Clyde R. Hedrick, Lenoir	1950-1956
L. Randolph Doffermeyre, Dunn	1950-1956
G. Westbrook Murphy, Asheville ¹⁷	1955
Joseph J. Combs, Secretary, Raleigh	1950-1956

SEVENTEENTH BOARD

Carl Vann Tyner, M.D., Leaksville	1956-1962
Joseph John Combs, M.D., Raleigh	1956-1962
John Bascom Anderson, M. D., Asheville	1956-1962
Thomas Williams Baker, M.D., Charlotte	1956-1962
Edwin Albert Raspberry, Jr., M.D., Wilson	1956-1962
Thomas G. Thurston, M.D., Salisbury	1956-1962
Luther Randolph Doffermeyre, M.D., Dunn	1956-1962

¹⁴ Elected to serve unexpired term of Dr. Elias.

¹⁵ Elected to serve unexpired term of Dr. T. Leslie Lee.

¹⁶ Elected to serve unexpired term of Dr. Paul G. Parker.

¹⁷ Elected to serve unexpired term of Dr. James P. Rousseau.

MEDICAL AWARDS

MOORE COUNTY MEDICAL SOCIETY MEDAL

In 1927 the Moore County Medical Society established a fund, the interest from which is used to pay for a medal to be given for the best paper read at the State Society meeting each year. No one is eligible to receive this medal except Fellows of the Medical Society of the State of North Carolina in good standing; no invited guest is allowed to compete.

Each Section Chairman selects a committee of three to decide on the best paper written in their section. The winning papers are then turned over to the State Committee, who select the one to receive the medal. The following Fellows have been awarded this medal:

- 1928—Paul Pressly McCain, M.D. Sanatorium
 "The Diagnosis and Significance of Juvenile Tuberculosis"
 (From Section on Pediatrics)
- 1929—A. B. Holmes, M.D. Fairmont
 "The Treatment of Uremia"
 (From Section on Chemistry, Materia Medica and Therapeutics)
- 1930—C. T. Smith, M.D., and W. Bernard Kinlaw, M.D. Rocky Mount
 "The Clinical Consideration of Anaemia of Pregnancy and of Puerperium"
 (From Section on Practice of Medicine)
- 1931—F. C. Smith, M.D. Charlotte
 "Practical Value of Perimetry in Intracranial Conditions; Case Reports" (tumors, vascular disease, toxemia, syphilis and trauma.)
 (From Section on Eye, Ear, Nose and Throat)

- 1932—Charles I. Allen, M.D. Wadesboro
 "An Improved Splint for Treating Fractures of the Lower Extremity Showing Reduction and Skeletal Distraction Attachments"
 (From Section on Surgery)
- 1933—H. L. Sloan, M.D. Charlotte
 "Some General Remarks about Cataract Surgery, With Report of 100 Consecutive Uncomplicated Cataract Operations"
 (From Section on Ophthalmology and Otolaryngology)
- J. R. Adams, M.D. Charlotte
 "Hypo-glycaemia in Children"
 (From Section on Pediatrics)
- 1934—Fred E. Motley, M.D. Charlotte
 "Complications of Mastoiditis with Special Reference to Septicemia"
 (From Section on Ophthalmology and Otolaryngology)
- 1935—Arthur H. London, M.D. Durham
 "The Composition of an Average Pediatrics Practice"
 (From Section on Pediatrics)
- 1936—V. K. Hart, M.D. Charlotte
 "Etiological and Therapeutic Aspects of Bronchiectasis with Clinical Observations on Bronchial Lavage by the Stitt Method"
 (From Section on Ophthalmology and Otolaryngology)
- 1937—No award made.
- 1938—O. Hunter Jones, M.D. Charlotte
 "Pelvic Architecture and Classification with its Practical Application"
 (From Section on Gynecology and Obstetrics)
- 1939—Donnell B. Cobb, M.D. Goldsboro
 "Vaginal Ureterolithotomy"
 (From Section on Surgery)
- 1940—C. R. Monroe, M.D., C. D. Thomas, M.D., and C. L. Gray, M.D. Pinehurst
 "Thoracoplasty and Apicolysis"
 (From Section on Surgery)
- 1941—Walter R. Johnson, M.D. Asheville
 "Is Diverticulitis of the Colon a Surgical Disease?"
 (From Section on Practice of Medicine)
- 1942—E. P. Alyea, M.D. Durham
 "Castration for Carcinoma of the Prostate Gland"
 (From Section on Surgery)
- 1943—No award made.
- 1944—D. F. Milam, M.D. Chapel Hill
 "Vitamin C Content of Some North Carolina Cooked Foods"
 (From Section on Public Health and Education)
- 1945—No Meeting.
- 1946—E. C. Hamblen, M.D. Durham
 "Some Aspects of Sex Endocrinology in General Practice"
 (From Section on General Practice of Medicine and Surgery)
- 1947—W. L. Thomas, M.D. Durham
 "Some Psychosomatic Problems in Gynecology"
 (From Section on Gynecology and Obstetrics)
- 1948—Felda Hightower, M.D. Winston-Salem
 "The Control of Electrolyte and Water Balance in Surgical Patients"
 (From Section on Surgery)
- 1949—George J. Baylin, M.D. Durham
 "The Roentgen Aspect of Non-Opaque Pulmonary Foreign Bodies"
 (From Section on Radiology)
- 1950—Parker R. Beamer, M.D. Winston-Salem
 "Studies on Experimental Leptospirosis"
 (From Section on Pathology)

- 1951—John P. U. McLeod, M.D. Marshville
 "A Simplified Modification for Staining of the
 Vaginal Smear for Immediate Appraisal of
 Endocrine Activity"
 (From Section on Gynecology and Obstetrics)
- 1952—Samuel F. Ravenel, M.D. Greensboro
 "Humidification in Pediatrics"
 (From Section on Pediatrics)
- 1953—Harrie R. Chamberlin, M.D. Chapel Hill
 "Diagnosis and Management of Poisoning Due
 to Organic Phosphate Insecticides"
 (From Section on Pediatrics)
- 1954—Paul Kimmelstiel, M.D. Charlotte
 Roland T. Pixley, M.D. Charlotte
 John Crawford, M.D. Charlotte
 "Statistical Review of Twenty-two Thousand
 Cases Examined by Cervical Smears"
 (From Section on Pathology)

THE GEORGE MARION COOPER AWARD

The Fellows of the Wake County Medical Society present this George Marion Cooper Award established in honor of George Marion Cooper, physician and health benefactor.

This medal is awarded by the Fellows of the Wake County Medical Society as a token of appreciation and esteem in recognition of the eminence of an essay contributing to the knowledge and advancement of the science of medicine in the field of Preventive Medicine, Public Health, or Maternal and Infant Health Care, presented before the Medical Society of the State of North Carolina. The following Fellows have been awarded this medal:

- 1951—Donald L. Whitener, M.D. Winston-Salem
 "The Management of Labor and Delivery in the
 Interest of the Premature Infant"
 (From Section on Gynecology and Obstetrics)
- 1952—Ronald Stephen, M.D. Senior Author;
 Duke University Durham
 "The Evaluation of Methods of Pain Relief
 During Labor and Delivery with Reference
 to Mother and Child."
 (From Section on Gynecology and Obstetrics)
- 1953—Ernest Craige, M.D. Chapel Hill
 "The Prevention of Recurrences of Rheumatic
 Fever"
 (From the Section on Practice of Medicine)
- 1954—Richard L. Pearce, M.D. Durham
 Eleanor Easley, M.D. Durham
 Kenneth Podger, M.D. Durham
 "Obstetric Analgesia and Anesthesia"
 (From Section on Obstetrics and Gynecology)
- 1955—Dirk Verhoeff, M.D. Huntersville
 William M. Peck, M.D. McCain
 "The Trends in Management of Tuberculosis
 in Children"
 (From Section on Pediatrics)
- 1956—Benjamin A. Johnson, M.D. Durham
 Susan C. Dees, M.D. Durham
 "Immunization of Allergic Children with Partic-
 ular Reference to Eczema Vaccinatum"
 (Section on Pediatrics)
- 1957—Walter A. Sikes, M.D. Raleigh
 John D. Patton, M.D. Asheville
 Robert L. Craig, M.D. Asheville
 Marie Baldwin, M.D. Asheville
 Anne Sagberg, M.D. Asheville
 R. Charman Carroll, M.D. Asheville
 "Trends in the Development of an Open Psy-
 chiatric Hospital"
 (From Section on Neurology and Psychiatry)
- 1958—Madison S. Spach, M.D.
 Jerome S. Harris, M.D.
 "Congenital Heart Disease in Infancy"
 (From Section on Pediatrics)
- 1959—Roy T. Parker, M.D. Durham
 Harry W. Johnson, M.D. Durham
 F. Bayard Carter, M.D. Durham
 "Obstetric Shock"
 (From Section on General Practice of Medicine)

- 1955—H. Hugh Bryan, M.D. Chapel Hill
 "Obesity and the Public Health"
 (From Section on Public Health)
- 1956—Wm. M. Peck, M.D. McCain
 "The Changing Pattern of Tuberculosis"
 (Section PH&E)
- 1957—John R. Ashe, Jr., M.D. Concord
 John V. Arey, M.D. Concord
 "The Use of Diamox in Obstetrics and
 Gynecology"
 (From Section on Obstetrics and Gynecology)
- 1958—John O. Lafferty, M.D.
 "Peptic Ulcers in Children"
 (From Section on Radiology)
- 1959—Robert E. Coker, Jr., MD. Chapel Hill
 "The Medical Student and Specialization"
 (From Section on Public Health & Education)
- 1960—William J. A. DeMaria, M.D. Durham
 "Management of Childhood Nephrosis"
 (From Section on Pediatrics)
- 1960—Courtney, D. Egerton, M.D. Raleigh
 Robert J. Ruark, M.D. Raleigh
 "Continuous Caudal Analgesia in Private Prac-
 tice"
 (From Section on Obstetrics & Gynecology)

GASTON COUNTY MEDICAL SOCIETY AWARD

By authority of the House of Delegates an award is established by the Gaston County Medical Society for the best presentation of audio-visual material in scientific treatise and will be awarded to the best presentation annually at the Annual Session of the State Society. Competition will be restricted to audio-visual material as provided by the rules. Program Chairmen of the eleven scientific sections should take note of this in the preparation of the 1956 program and in judging of presentations at the Annual Session in 1956. The following Fellows have been awarded this medal:

- 1952—Kenneth L. Pickreil, M.D. Durham
 "Tattooing the Cornea"
 (From Scientific Exhibits)
- 1953—Joseph E. Markee, M.D. Durham
 "Autonomic Nervous System"
 (Film from Audio-Visual Postgraduate
 Instructional Program)
- 1954—William H. Boyce, M.D. Winston-Salem
 Fred K. Garvey, M.D. Winston-Salem
 Charles M. Norfleet, M. D. Winston-Salem
 "Biocolloids of Urine in Health and in Calculous
 Disease"
 (From Scientific Exhibits)
- 1955—Caleb Young, M.D. Winston-Salem
 "Congenital Dislocation of the Hip"
 (A motion picture)
 (From Postgraduate Audio-Visual Program)
- 1956—C. R. Stephen, M.D. Durham
 R. C. Martin, M.D. Durham
 Bourgeois-Gavardin. Durham
 "Prophylaxis of Non-Hemolytic Transfusion
 Reactions: Value of Pyribenzamine"
 (Section on Anesthesia)
- 1957—J. Leonard Goldner, M.D. Durham
 Mr. Bert Titus. Durham
 "The Juvenile Amputee-Upper Extremity"
 (From Section on General Practice of Medicine)
- 1958—T. Franklin Williams, M.D.
 J. L. DeWalt, M.D.
 R. W. Winter, M.D.
 Charles H. Burnett, M.D.
 "Newer Diagnostic Criteria In Hyperparathy-
 roidism"
 (From 1958 Scientific Exhibits)
- 1959—Albert G. Smith, M.D. Durham
 "Automation in the Clinical Chemistry
 Laboratory"
 (From Section on Pathology)
- 1960—Paul W. Sanger, M.D. Charlotte
 "Surgical Management of Deformities of the
 Anterior Chest"
 (From 1960 Scientific Exhibits)





